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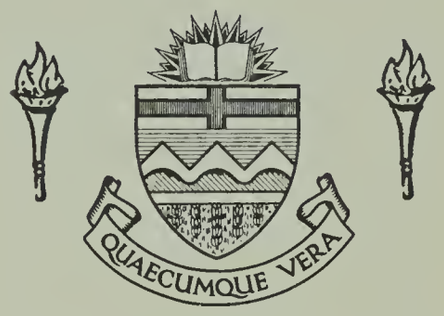

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THE UNIVERSITY OF ALBERTA

A STUDENT VIEW OF ORGANIZATIONAL CLIMATE

by

ROBERT VINCENT STEELE

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES

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THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled A Student View of Organizational Climate submitted by Robert Vincent Steele in partial fulfilment of the requirements for the degree of Master of Education in Educational Administration.

ABSTRACT

The purpose of the study was to examine the organizational climate of one urban high school as perceived by the students and to relate this perceived organizational climate to a number of student variables. Student satisfaction with the school under study was also examined in relation to similar student variables.

The Elementary and Secondary School Environment Index developed by George C. Stern was used to describe the perceived organizational climate of the school under study. Student information and student satisfaction questionnaires were developed for the study. The Student Information Questionnaire provided information concerning individual variables including age, sex, program of studies, achievement and future plans and aspirations. The Student Satisfaction Questionnaire provided information regarding the students' degree of satisfaction in a number of school related areas including relationship with teachers, classmates, administration and overall satisfaction with the school under study. Responses were received from two hundred and seventy students in one school; two hundred and sixty nine of these responses were usable.

Major findings of the study were:

(1) Significantly different perceptions of the organizational climate of the school under study were identified within the student level of the school organization. These climates were linked to individual variables such as sex of student, program of study and future plans and aspirations.

(2) Student age, achievement and attendance were also shown to be significant determiners of perceived organizational climate.

(3) A significant relationship existed between student satisfaction and student perceptions of the organizational climate of the school under study.

(4) The number of years students had attended the school was not a significant determiner of perceived organizational climate.

(5) Student sex, achievement, attendance and future plans and aspirations were significantly related to student satisfaction.

(6) Student age, and the number of years in attendance at the school under study were not related to student satisfaction.

The findings suggest that students' perceptions of their environment and degree of satisfaction are closely related. For example, students who perceived their environment to contain high levels of peer group dominance were less satisfied than the other students.

The findings also suggest that a single climate description of a school may not be an adequate composite of the variety of perceived climates that exist within the school organization. Perhaps the most appropriate description of perceived organizational climate is at the smaller subgroup level.

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CHAPTER 1

INTRODUCTION

Scholars in recent years have been interested in observations that schools differ markedly not only in physical structure and student socio-economic strata but also in atmosphere. School atmosphere has often been referred to as the school's personality or organizational climate. The term organizational climate has been used as a general term to refer to aspects of the socio-psychological environment.

Development of indices which endeavour to describe the interaction between the individual and the organization especially within the school context, has been credited largely to the work of Halpin and his associates (1963) and Stern and his associates (1970). Moreover, these measurements of organizational climate were results of assessing empirical data obtained through appropriately designed instrumentation based on collective responses which measured key socio-psychological factors of a school. According to Stern (1971:8), the differences in school climate can be seen as being concerned with the power of the organizational environment either to promote or restrict the self-actualization of the individual. A school's climate may be seen as ranging from environments which provide for individual self-actualization to environments which are highly controlled and restrictive.

Many studies have been conducted depicting the organizational climate of the school from the viewpoint of the teacher and the administrator. Recently, similar data regarding the school's environment from the student's point of view has become available. The major

focus of this research project has been to investigate the organizational climate of one Edmonton area high school as determined by the perceptions of the school's students and to relate these findings to independent variables related to students.

THE PROBLEM

Hellriegel and Slocum (1974:256), in discussing the organizational climate construct, stated:

> The construct is based on the assumption that individuals within a given subsystem or organization and at a given hierarchial level should have similar perceptions about their climate. One source of concern with perceptual measures of climate is that there are potentially as many climates as there are people in the organization. In terms of the studies reviewed, this represents a hypothesis which warrants further study.

Friesen (1974) raised a similar concern regarding the number of organizational climates that can be identified within an organization by suggesting that members at different levels of the school organization may view the climate of the organization in different ways. Both Friesen and Slocum and Hellriegel questioned whether perceptions of climate vary significantly when evaluated on the basis of individual measures.

This study was developed to examine the organizational climate of one urban high school as perceived by the students and to relate this perceived organizational climate to other variables.

Sub-Problems

There were five sub-problems in this research project. The first sub-problem was to discern the organizational climate of the sample school as determined by the Elementary and Secondary School

Environment Index (Short Form) as developed by Stern.

The comparison of the sample school with the normative scores on the seven sub-scales of the Elementary and Secondary School Environment Index (Short Form) was a second sub-problem of the research project.

The third sub-problem was to investigate the relationship between the perceived organizational climate of the sample school and the following sub-group measures:

1) sex of students
2) age of students
3) course of studies
4) achievement of students
5) number of years at the sample school
6) attendance of students
7) aspirations of students

The fourth sub-problem of the research project was the determination of the relationship, if any, between the student satisfaction scores on the student questionnaire and the following variables:

1) sex of students
2) age of students
3) achievement of students
4) number of years at the sample school
5) attendance of students
6) aspirations of students

The final sub-problem was to determine the relationship, if any, between the satisfaction scores obtained from the student questionnaire and the climate scores obtained from the Elementary and Secondary School Environment Index (Short Form).

SIGNIFICANCE OF THE PROBLEM

An examination of the literature dealing with organizational climate illustrated a great deal of interest and controversy surrounding the measurement of organizational climate. Hellriegel and Slocum (1974:276) pointed to this controversy:

> On a conceptual level, the organizational climate construct has relatively well-defined boundaries and suggests considerable potential for describing and understanding behavior of individuals within organizations. The movement from the conceptual to measurement level has posed a number of problems and ambiguities which remain to be resolved.

The significance of this research project rests in that it examines one level of the school organization and its subsystems such as sex, age, program of studies, satisfaction, achievement, attendance, and years in the organization. The findings are significant if within one level of the organization a number of climates could be identified and linked to smaller subsystems. Further significance of the problem lies in the possibility of determining interactions between the seven factors of the Elementary and Secondary School Environment Index (Short Form) and other organizational variables such as rewards (achievement) and grievances (attendance and satisfaction). Hellriegel and Slocum (1974:277) concurred in the significance of the problem:

> In the future, researchers should concentrate on both external and internal criteria and how these criteria are linked together. Causal links between climate and measures of job performance, turnover, grievances and the like should be investigated further.

ASSUMPTIONS

To carry out this research project, four assumptions were made regarding data collection and statistical procedures.

The first assumption was that the student sample used was adequate and representative of the total high school population of the sample school.

The second assumption was that the sample size was adequate to reveal significant statistical results.

The third assumption was that the Elementary and Secondary School Environment Index (Short Form) and the Student Information Questionnaire gave valid and accurate measurements of the variables being studied.

The fourth assumption was that the responses of the students were truly unbiased responses. The questionnaires were not administered by the investigator but by a teacher in the sample school and it must accordingly be assumed that the Elementary and Secondary School Environment Index (Short Form) and the Student Information Questionnaire were administered according to the instructions.

DELIMITATIONS OF THE STUDY

This research project was restricted to a sample of Grade Ten, Grade Eleven and Grade Twelve students at one junior-senior high school in the Edmonton, Alberta area. Consequently, the sample represents only one type of school from one socio-economic area. The student sample consists of all the students who were present at the time of testing.

LIMITATIONS OF THE STUDY

One limitation of this research project was that the sample consisted of only the students who were present at the particular time

of testing. Students who were part time students or chronic attendance problems were not actively sought out to solicit their opinions. Furthermore, the testing was carried out on June 13, late in the school year. Consequently, it might be assumed that a number of problem students had already left school, either of their own volition or through administrative action.

Another limitation was because the Elementary and Secondary School Environment Index (Short Form) was developed and normed in the United States, it might not have been strictly pertinent to the Alberta school situation.

Another limitation was a deliberate limitation. Although the sample school was a junior-senior high school, the sample population for the purposes of this research project consisted of only the senior high school portion of the school. The junior high school portion of the sample school, although physically part of the total school, operated quite independently of the senior high school portion.

DEFINITION OF TERMS

Substantive Definitions

Organizational climate has been defined in the following manner by Hellriegal and Slocum (1974:256) in general terms:

> Organizational climate is a set of attributes which can be perceived about a particular organization and/or its subsystems and that may be induced from the way that organization and/or its subsystems deal with their members and environment. Several themes are implicit in this definition. Perceptual responses sought are primarily descriptive rather than evaluative. Level of inclusiveness of the items, scales and constructs are macro rather than micro. The units of analysis tend to be attributes of the organization or specific subsystems rather than the individual. The perceptions have behavioral consequences.

The question of defining and differentiating between organizational climate and satisfaction becomes important in a research project which utilizes both concepts. Organizational climate is most adequately conceptualized as the perception of, or about, the organization held by the people within the organization. Satisfaction, on the other hand, is most adequately conceptualized as a personalistic evaluation of the organization by the people within the organization.

Another substantive definition of organizational climate as seen by Miklos (1965:25) is the characteristics of certain social relationships which exist among members of an organization and between the total organization and its participants.

Organizational climate, in schools in particular, has been defined by Bishop (1971:210) as the measurement of socio-psychological phenomena within schools.

Operational Definitions

The school organizational climate is defined as the climate of a school as described and measured by the Elementary and Secondary School Environment Index (Short Form).

The Elementary and Secondary School Environment Index (Short Form) is the instrument developed by George Stern to describe and measure school organizational climate. The title of this instrument will be abbreviated to ESI in future references to it.

ORGANIZATION OF THE THESIS

The problem, its significance, its limitations and delimi-

tations, its assumptions and its defined terminology have been presented in the present chapter. The remainder of the thesis is organized as follows. A theoretical background and a review of the related research is presented in the next chapter. This is followed, in Chapter 3, by a description and discussion of the instruments used during this research project, an outline of the methodology employed, and finally the statistical treatments which were used to analyze the data. Chapter 4 reports the results of the statistical treatment employed and discusses the significance of the results. The thesis concludes, in Chapter 5, with a summary and an interpretation of the findings of this research project.

CHAPTER 2

THEORETICAL FRAMEWORK AND RELATED RESEARCH

The background information and the theoretical concepts and constructs which provide the basic understandings required for this study are presented in this chapter. The organizational climate construct is described in an historical perspective in order to follow the development of organizational climate theory and research to date. Related literature and research is also discussed in the context of the current controversy regarding the organizational climate construct. The chapter ends with a statement of the null hypotheses which were tested in this study.

THEORETICAL BACKGROUND

Scientific Management Theory

Early efforts of Taylor (1911) Fayol (1949) and Weber (1943) indicated attempts to understand modern organizations. These early attempts became identified with the scientific management era. Owens (1970:9) noted that the years 1910 to 1935 were generally identified with classical or scientific management theory.

The two fundamental concerns of scientific management theorists were motivation and organization. In the view of classical theorists, monetary incentives were the primary motivation of individuals. It was postulated that an individual would work for and remain within an organization for monetary reasons. As a result, there was

an emphasis toward piece work and the use of enticements such as bonuses to increase productivity.

Other organizational aspects of scientific management theory were characterized by the division of labor, centralized control, and orderly channels of communication. Argyris (1957:57) states that "It was deemed essential for the efficiency of the organization that individuals within the organization be loyal to the formal structure." The theory of scientific management limited the interaction between the individual and the organization to a strictly motivational one, which could be directly controlled through the use of incentives.

The effects of scientific management theory were felt in most organizations of the time, including schools. Erickson (1965:5) pointed out that, "Taylor's scientific management approach, later discredited, was rampant among educators in 1923." Early indications that there were many other factors involved in organizational life were formed as a result of studies such as the Hawthorne studies conducted by Roethlisberger and Dickson during the nineteen twenties. As a result of these and other studies, the scientific management principles began to be questioned and the human relations movement emerged. The human relations movement increased the emphasis on the study of the behavior of individuals within organizations.

Human Relations Era

As scientific management principles began to be questioned, human and interpersonal factors of the organization, both industrial and educational, became all important. The human relations era was

marked by an emphasis on the emotional and social elements of organizational behavior. Etzioni (1964:32) noted that discoveries regarding friendship, social grouping of workers, the importance of leadership, communication and participation characterized the human relations era. The human relations movement, in reaction to the earlier scientific management theory and as a result of research, moved in the direction of human relations, emphasizing human and interpersonal factors in the administration of organizations.

The New Administration

Throughout the human relations era, there were those who favored a balanced perspective with regard to maintaining an equilibrium between productivity of the organization and the human factors emphasized by the human relations movement. Roethlisberger and Dickson (1939:558) pointed to two major functions of an organization. They cited that one was to produce a product and that the other was to create and distribute satisfaction to all the members of the organization. Owens (1970:11) noted there were many concepts regarding organizational administration and behavior but that they were merely tangled ideas in the literature on administration.

Owens credited Barnard (1938) with integrating concepts from many schools of thought with his own ideas to produce a complete and integrated fabric. Owens (1970:11), in referring to Barnard, stated, "He thus ushered in an era of understanding in administration that we now consider both 'Modern' and 'New'." This era was marked by increasing interest in organizational behavior by behavioral scientists,

psychologists, sociologists, political scientists as well as others who could synthesize their own specialized knowledge of human behavior, research methods for studying human behavior and theoretical concepts and thereby yield insights into organizational behavior. The new view of administration was a combination of the classical concepts and the human relations concepts. This new approach was seen by Owens (1970: 12) as "looking upon the administration as very much involved in the behavior of people in organizational settings."

From this point on, studies of organizational behavior took several forms. Leader behavior, role theory, and systems theory were three areas in which there has been much interest and research.

Leadership Behavior

The major focus of studies of leadership generally has fallen into three areas: psychological studies of leadership, sociological studies of leadership and behavioral studies of leadership. Psychological studies of leadership were interested in the personal traits of individuals in leadership positions. Sociological studies of leadership tended to focus on the situation in which leadership was required. A conflict between these two approaches arose in which some scholars emphasized the understanding of the personality traits of the leaders while other scholars stressed it was more important to study interactions between leaders and followers. This conflict was superseded by a more general, behavioral approach. Behavioral studies focused on observed behaviors in certain situations but refrained from making causal statements. Behavioral studies did not insist that the cause

of behavior be discovered but rather assumed leadership behavior observed in one situation would be found in another similar situation.

Studies of leadership behavior suggested that a leader's behavior fell into two dimensions - - initiating structure and consideration. Halpin (1966:86) defined initiating structure as:

> . . . the leader's behavior in delineating the relationship between himself and members of the working-group, and in endeavoring to establish well-defined patterns of organization, channels of communication, and methods of procedure.

Consideration referred to behavior indicative of friendship, mutual trust, respect, and warmth in the relationship between the leader and members of his staff.

Studies in leadership were exemplified by studies utilizing the Leadership Behavior Description Questionnaire, developed by Hemphill and Coons (1957) at Ohio State University. The Leadership Behavior Description Ouestionnaire (LBDQ) offered a means of defining dimensions operationally and made it possible to emoloy empirical testing techniques. Halpin (1954:20) utilized the LBDQ in a study of Air Force personnel. The study documented that effective leadership behaviors were characterized by high scores on both the initiating structure and the consideration dimension of the LBDQ.

Role Theory

Role theory attempts to explain individual behaviors in an organization as a function of the expectations held for the position in the organization occupied by the individual. Role theory has been used extensively by researchers in order to predict and understand organizational behavior.

Lonsdale (1964:149) saw an organization as a social system made up of positions in vertical and horizontal relationships to one another. The persons in these positions behave, in part, in accordance with the way they think they are expected to behave.

Emphasizing the multiplicity of role definition, Owens (1970: 71) defined role as:

> The various offices or positions in an organization carry with them certain expectations of behavior held by both onlookers and by the person occupying the role. These expectations generally define role, with some additional expectations that the individual will exhibit some of his own idiosyncratic personality in his role behavior.

Role theory also attempts to clarify the nature of conflict within organizations. Role conflict and role confusion develop where roles are not clearly defined or where individuals have varying perceptions of a particular role. Role conflicts produce tension, confusion, and uncertainties which result in inconsistent organizational behavior. Owens (1970:72) noted that confusions about role expectations and role perceptions were quite common occurrences. Another source of tension is role ambiguity. Role ambiguity occurs when a role is contradictory or vague, and concurrent roles, such as when an individual has more than one role at a given time.

Social Systems Theory

In a general way, social systems theory views organizational behavior as the interrelationship between the individual needs and the organizational pressure. A social system, according to Griffiths (1964:428) is a complex of elements in mutual interaction. Open systems are systems which interact with their environment, affect

their environment and are affected by their environment yet still retain their own identity. Closed systems do not interact with their environment.

Getzels and Guba (1957:424) saw the individual functioning within the organization not only as himself but also as one who occupied a particular role within the social system. Owens (1970:169) noted that there have been a number of conceptual models of system theory developed and tested. One of the most popular and useful models for expressing the social systems concept has been the Getzel-Guba model (1957:424). This model conceived of a social system which involved two distinct classes of phenomena which interact with each other but which are independent within themselves. The nomothetic dimension, the first class of phenomena contained all the elements of the institution such as roles, expectations and goals. The other, the idiographic dimension, contained the elements of the individual inhabiting the social system, his personality and need disposition. The interaction of these two dimensions constitutes what has generally been referred to as a social behavior.

It has been postulated that an organization is in a desirable state when it has achieved a climate of close needs-demands congruence. Argyris (1957:175) agreed that a close needs-demands congruence was desirable but also explained that conflict between the individual and the organization was inevitable. Argyris (1957:177) suggested that an organization should develop an atmosphere which permits members to identify, to discuss and to work toward reducing the cause of the conflict.

Etzioni (1961) through his compliance theory suggested that another dimension of organizational life must be considered in addition to individual needs and organizational demands. He postulated in his compliance theory that the method of attracting participants to an organization had a definite bearing on the observed organizational behavior. It was Etzioni's contention that organizations which compel their participants to join, a prison for example, would have a markedly different observed organizational behavior than an organization in which participants may freely come and go. Owens (1970:171) noted:

> Argyris, Getzels and Etzioni provide us with generalities about the social environment of organizational life. They utilize structures such as role theory, social systems theory, and compliance theory which are helpful for conceptualizing the dynamics of organizational behavior.

Henry (1960:80) adapted an existing model, the Getzels and Thelan Model (1960), to the school role structures and expectations and proposed a model representing the social system of a school. (Figure 1). Henry, as Getzels and Thelan (1960:80) pictured, postulated the nomothetic dimension of the school consisted of organizational roles and the idiographic dimension consisted of the personality structures and needs of the individual.

In the work-group lies the mechanism by which demands of the institution and the needs of the individual are modified. There is a dynamic interrelationship in the work-group situation. This interrelationship is not only an interpersonal relationship but also one of an institutional-individual nature. There is an interplay between the institutional requirements of the organization and the idio-

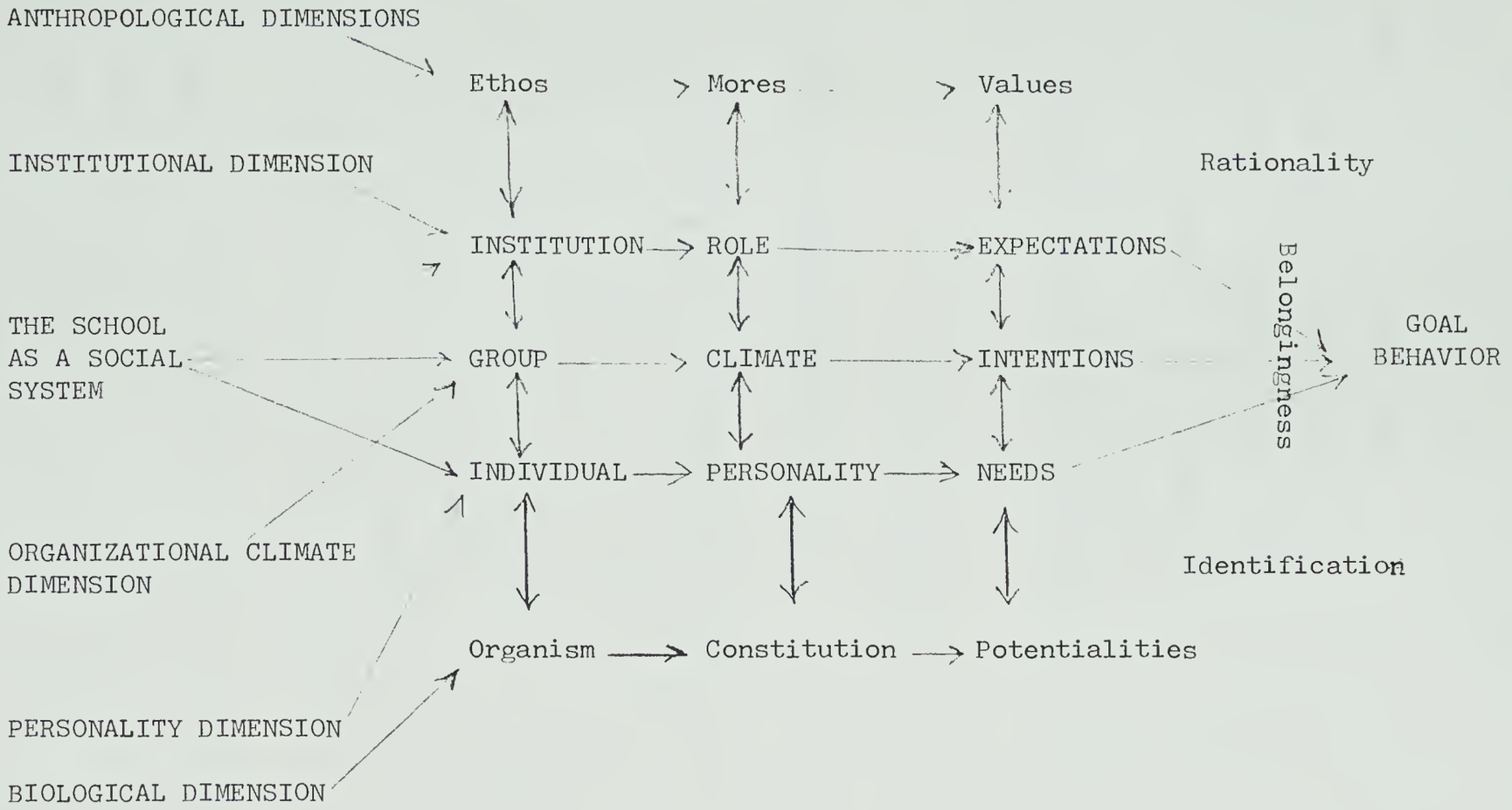

Figure 1: Dimensions of a school as a social system. Adapted from J.W. Getzels and H.A. Thelan, "The Classroom Group as a Unique Social System", in N.B. Henry, ed., The Dynamics of Instructional Groups: Sociopsychological Aspects of Teaching and Learning, N.S.S.E. Yearbook LIX, Part II (Chicago: National Society for the Study of Education, 1960), p. 80.

syncratic needs of the individual participants in the organization.

Owens (1970:79) observed that the shaping of the institutional role, the development of the climate within the social system and the very personality of the participants all dynamically interact with one another. This results in the observed organizational behavior. Organizational climate, therefore, can be conceptualized as being the result of the dynamic interplay between personality and organizational role description. Climate is the personality of the organization, a result of the interactions between the individual, the work group and the institution.

RELATED LITERATURE

Early Studies of Organizational Climate

Early studies of organizational climate took the form of observations of interactions among individual members of an organization. In a fourteen month long study of restaurants, Whyte (1949:302-8) and a team of observers recorded the interactions among customers, waitresses, supervisors and others who worked in the restaurants being studied. The systematic observations showed the emotional involvements and the conflicts and tensions which exist within the restaurant workgroup.

Early classroom climate studies also followed the observation approach and concentrated on an examination of pupil-teacher interaction within the setting of the classroom. Withall (1951:93-99), in a study of several high school classes held in the Laboratory Classroom of the University of Chicago, developed a social emotional climate

instrument based on a categorization of teacher statements and a description of the resultant pattern of statements. The Withall instrument was a set of seven categories for classifying all statements made by the teacher. The seven categories were grouped into statements which were either learner-centered or teacher-centered.

The climate index developed by Withall (1951) was utilized by Flanders (1951) and by Perkins (1951). Flanders (1951:110) concluded that student behavior which was associated with interpersonal anxiety took priority over behavior oriented toward problem achievement. Furthermore, teacher behaviors characterized as teacher-supportive elicited negative student responses whereas learner-centered responses by the teacher produced positive student responses.

Perkins (1951:117-119) in a study of six teacher in-service sessions conducted by principals concluded that group climate as measured by the Withall instrument remained relatively unchanged throughout the study. Group members' feelings about themselves, their leaders and their problem greatly influenced the kinds and amounts of learning achieved. Perkins also concluded that tensions in the individual and in the group affected group climate and limited group learning. In a summary statement, Perkins (1951:119) concluded:

> Climate appears to be a key ingredient in interpersonal experience, for it will in a large measure determine the learning and satisfaction of emotional needs of groups, the outcomes which provide a realization of some of the broader objectives of education.

Innacconne (1961:228-240) in a study of the Jefferson School System utilized observations, formal organizational charts, and related information to establish what was felt to be a representative picture of the social systems of the school system. Informal systems within

the organization were seen to operate quite independently of formal systems when the need to do so was present.

Willower and Jones (1963) in a study of a junior high school utilized the observer approach to categorize the work-group interactions of the staff. The researchers found that the staff work-group influenced new, idealistic teachers into accepting the norms of the informal work-group with regard to student control. The climate established by the work-group was one which pressured new, idealistic teachers to accept majority norms.

These early studies involving organizational climate were helpful in conceptualizing the climate construct. However, these early studies were only descriptions of behaviors. They tended to be generalizations rather than to deal with comparative data.

The development of organizational climate indices for schools has been credited largely to Halpin and his associates and to Stern and his associates. These indices provided researchers with dimensions to measure factors which constitute the climate of a school and with normative data from many schools to determine more accurately how one school might compare with others.

The Organizational Climate Description Questionnaire

The Organizational Climate Description Questionnaire (OCDQ) was developed by Halpin and Croft as a means to measure and chart the differences in climate which characterize individual schools. One underlying rationale of the OCDQ was that a quality which can be termed organizational climate in fact existed. A second underlying

rationale of the OCDQ was that organizational climate was closely related to the perceived behaviors of teachers and principals.

In developing the OCDQ, Halpin and Croft (1963), while recognizing that there might be numerous other factors at work, chose to concentrate on the impact of the principal and teachers on the organizational climate. Halpin and Croft also elected to develop an instrument for the analysis of organizational climate at the elementary school level.

The OCDQ was developed from an analysis of seventy-one elementary schools from six different regions of the United States. The climate of each school was described by the teachers and the principal on a set of Likert-type items. The analysis of the researchers was based on the description of the sample schools given by 1151 respondents.

The sixty-four items in the OCDQ were grouped onto eight subtests which were delineated by factor analytic methods. Four of the eight subtests, Disengagement, Hindrance, Esprit, and Intimacy, pertained to the characteristics of the faculty. The other four subtests, Aloofness, Production Emphasis, Thrust, and Consideration, pertained to the characteristics of the principal. From the scores on the eight subtests, an organizational climate profile for each school was constructed.

The researchers then compared the school climate profiles to determine if the profiles would constellate in a fashion that would allow them to differentiate between types of climate. The result was the identification of six climates which were envisioned to form a

continuum with open climate at one end and closed climate at the other end. The six organizational climates identified by Halpin and Croft's study were open climate, autonomous climate, controlled climate, familiar climate, paternal climate and closed climate. Halpin and Croft (1963:4) noted that by their definition, open climate was the most desirable.

The OCDQ has become one of the most popular and widely used techniques for assessing organizational climate in schools; however, it is an instrument which is not without controversy and criticism. Watkins (1968:54), in discussing the use of the OCDQ in junior and senior high schools, questioned that the results obtained on the OCDQ were heavily loaded toward the closed end of the climate continuum. Watkins (1968:55) went on to suggest that the findings of the OCDQ made explicit the need to investigate further the applicability of the OCDQ for use within the larger secondary schools.

Similar criticisms of the OCDQ were expressed by Morris (1963) in a study utilizing the OCDQ to classify 146 schools on the basis of their organizational climates. This study also indicated that secondary schools were heavily loaded toward the closed end of the climate continuum. Owens (1970:183) corroborated this concern that the OCDQ was not well-suited for use in large urban or secondary schools.

Another area of controversy surrounding the OCDQ was that one climate for a school might not be an accurate compilation of the varying climates within a school. Members at different levels of the organization might view the climate of the organization in different ways. With regard to the OCDQ, studies by Grassie and Carss (1971)

and Ogilvie (1973) illustrated differences in perceived organizational climate at different levels of the school hierarchy and posed the problem of which organizational climate is truly representative or important.

Although the OCDQ is usually administered to teachers and administrators only, Friesen (1972:97) in reviewing a study utilizing the OCDQ and eliciting responses from all levels of the school hierarchy, including students, reiterated that different members at different levels of the school organization might view the climate of the organization in different ways. Friesen questioned which level of the hierarchy perceived most accurately the climate of the school.

Given that at different levels of the organization there might exist different perceived organizational climates, the question whether the perceptions of members at one level are more important than the perceptions of members at another level arises. Bishop (1971:209) contended that the student level, rather than the teacher or administrator level, was the most important climate in the school setting.

Yet another area of concern regarding the OCDQ, according to Owens (1970:183) was that the six climate types identified by Halpin and Croft (1963) were arbitrarily identified and that subsequent researchers have identified both fewer and more types of organizational climates.

The Syracuse Indexes

Working independently of Halpin and his associates, George Stern (1956) and others developed a series of instruments to describe

and measure organizational climate.

Stern's measures of organizational climate were based on the need - press model of personality as developed by Murray (1938). Murray (1938:124) postulated that human personality was the product of the interaction between personal needs and the environmental press or environmental pressures, which led to adaptive behavior. Behavior was seen as a function of the congruence between personal needs and environmental pressures or environmental press.

Stern (1970:6) defined needs as organizational tendencies which appear to give unity and direction to behavior. Stern (1970:7) went on to note that needs are taxonomic classifications of the characteristic spontaneous behaviors manifested by individuals in their life transactions. A need is considered functional in character, is identified with the goals which an interaction serves for the individual and is revealed in the modes of behavior employed by the individual.

Environmental press was defined by Stern (1970:8) as a taxonomic classification of characteristics manifested by aggregates of individuals in their mutual transactions. Stern (1970:7) indicated that press referred to the phenomenological world of the individual. Press is considered a combination of the uniquely private view each person has of events in his environment and the shared view of the same event with other members in the individual's environment.

Stern and others evolved two types of questionnaires to determine the need - press factors which influenced the formation of climate in organizations. Stern (1971:4) adapted the joint concepts

of need and press to explore the consequences of representing the person and his environment in common terms to conduct normative investigations of life space.

The Activities Index was developed by Stern, Stein and Bloom (1956) to measure the psychological needs of the individual. The questionnaire consisted of descriptions of three hundred commonplace daily activities. The respondents to the questionnaire were asked to indicate the activities which they would prefer doing and which activities they would reject. The three hundred items were carefully developed samples of behaviors which reflected thirty need categories (Appendix C). The Activities Index provides the researcher with a view of an individual's need dimension as indicated by the individual's scores on the thirty need categories.

A parallel set of environment questionnaires were developed which, like the Activities Index, listed three hundred typical events. In these questionnaires the respondent is asked whether the events could or did occur within his particular environment. The three hundred events describe the environmental press of the institution in question and are based on the same thirty variables as the Activities Index. Hoy and Miskel (1978:160) note that the parallelism of need and press is relatively easy to maintain in the Activities Index and the related environment indexes.

The College Characteristics Index developed by Stern and Pace in 1957 was the first of the environment indexes to be developed. Each of the thirty need categories (Appendix C) were reformulated into parallel press variables and the College Characteristics Index was

developed to identify the personality of the college.

Stern and Steinhoff (Stern 1970:261) developed a more general environment index for use in schools and other organizations. This index, The Organizational Climate Index (OCI) contained the same thirty variables as the College Characteristics Index in an attempt to determine the environmental press or the climate of the organization. The Organizational Climate Index consists of three hundred true or false statements regarding the organization's environment. The responses were used to compute thirty environmental press scores similar to the College Characteristics Index.

Through factor analytic methods Stern (1970:261-269) reduced these thirty press scores into six first order factors which were intellectual climate, achievement standards, practicalness, supportiveness, orderliness and impulse control. These factors in turn were combined (Stern 1970:269-275) to produce two second order factors, Developmental Press and Control Press. Developmental Press (Steinhoff and Bishop 1974:40) refers to the ability of an organization to support, satisfy and enhance self-actualizing behavior. Control Press refers to those characteristics within the environmental context which restrict and inhibit personal expressiveness and spontaneity.

Stern (1970:272) noted that theoretically four types of organizational climates could be conceptualized when Developmental Press and Control Press are represented on an axis (Figure 2).

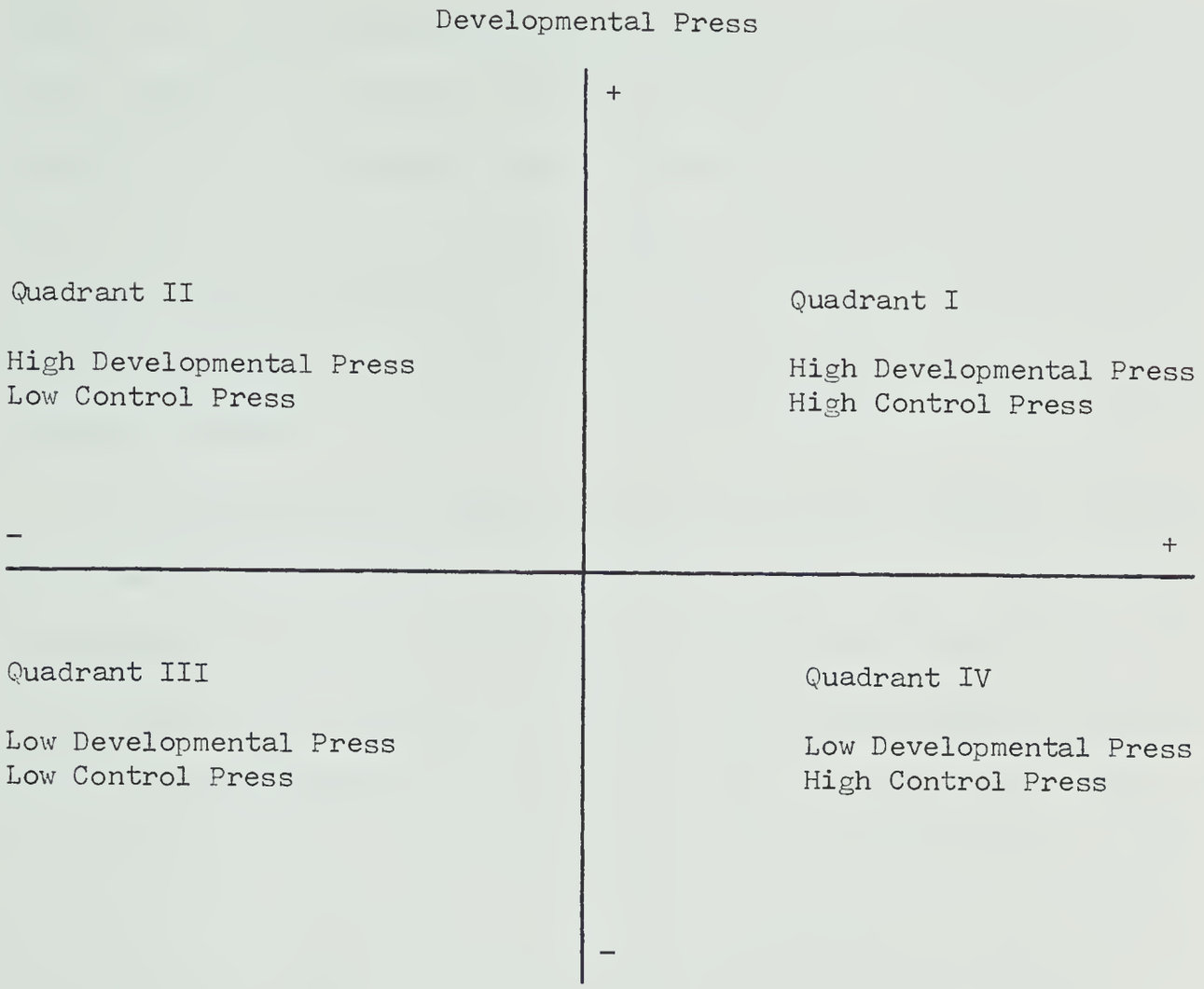

FIGURE 2: Types of Organizational Climates

Research by Owens and Steinhoff (1969:259-263) suggested that most public schools tend to fall into Quadrants II and IV. Hoy and Miskel (1978:164) indicated that the Organizational Climate Index had somewhat limited use due to its extended length. However, the Organizational Climate Index has been used effectively to differentiate among the climates of schools. Hoy and Miskel pointed out that the Organizational Climate Index has made important distinctions among schools in large urban areas where homogeneity among schools has been assumed.

A number of environmental indexes or climate questionnaires related to the Organizational Climate Index have become available.

These related questionnaires were developed to examine the organizational climate in a variety of specific environments. Among these instruments are the Evening College Characteristics Index developed by Stern, Winters, Archer, and Meyer in 1961, the High School Characteristics Index developed by Stern in 1960, and the most recent environment index, the Elementary and Secondary School Environment Index, developed by Stern in 1973.

The environmental index which was used in this research project, the Elementary and Secondary School Characteristics Index (ESI), is the most recent of the environment indexes. The ESI is a short form environmental index containing sixty-one true or false items developed for use with students from grades four to twelve (Appendix A). The test manual (Appendix A) which accompanies the ESI notes that a factor analysis performed on a sample of 6,733 respondents to the High School Characteristics Index Questionnaire was the basis for the creation of the shorter ESI.

The ESI contains seven first order factors which are intellectual climate, expressiveness, group social life, personal dignity/supportiveness, achievement standards, orderliness/control and peer group dominance. These first order factors are combined to produce three second order scores, Developmental Press, orderliness/control and peer group dominance.

The Syracuse Indexes, like the Organizational Climate Description Questionnaire developed by Halpin and Croft, are not without criticism. Layton (1972:343-344) in a review of the environment indexes developed by Stern prior to the development of the ESI, cri-

ticized the environment indexes with regard to the norms provided. Layton (1972:143) noted that norming procedures for the College Characteristics Index, the High School Characteristics Index, and the Organizational Climate Index were haphazard. Skager (1972:346-347) noted that the High School Characteristics Index does seem to successfully differentiate between types of high schools and suggested that more use of the High School Characteristics Index was necessary before conclusions regarding its abilities could be made. Skager (1972:347) noted that the real question regarding the use of the High School Characteristics Index was whether or not a researcher wanted to describe a high school in terms of presses favoring the expression of the particular set of personality variables chosen, or in terms of other types of variables. Hoy and Miskel (1978:164) indicated that research with the Organizational Climate Index, the most widely used of the Syracuse Indexes, was still somewhat limited. Hoy and Miskel went on to note that the extended length of the Organizational Climate Index Questionnaire could be the cause of its limited use. Skager (1972:347) made a similar observation regarding the High School Characteristics Index, and questioned the length of the instrument.

Related Satisfaction Literature

A significant portion of this research project concerns student satisfaction. Theoretical constructs which are identified with satisfaction research are presented in this section.

Satisfaction is defined by Dunn and Stephens (1972:318) as "a feeling which has arisen in the worker as a response to the total

job situation." Vroom (1964:99) defines satisfaction as "the affective orientation of individuals toward work roles that they are presently occupying." Similar definitions of job satisfaction are expressed by Locke (1969:314), and Smith (1967:343). Satisfaction would best be conceptualized as a personalistic evaluation by the individual of his job situation or his work environment.

A number of theorists have offered insights into the nature of job satisfaction. Locke (1969:316) postulated that satisfaction was the feeling of pleasure and displeasure related to the degree of need attainment experienced by the individual in the work experience.

Globe (1976) and Herzberg (1976) stated that the amount of satisfaction experienced from the work situation was greater than the degree of satisfaction experienced in other environments. Schoonmaker (1969) contended that the individual through the work situation satisfied personal needs and developed a sense of identity. As a result, job satisfaction has been considered an important individual need having implications for feelings of self-worth and personal mental health.

Theories of job satisfaction are characterized by Locke (1969: 321) according to whether the determinants of job satisfaction reside solely in the individual's mind, the job itself, or whether satisfaction is viewed as a result of the interaction between the individual and the work environment.

The satisfaction theories of Schaffer (1953), Maslow (1970) and Porter (1975) contended that the determiners of satisfaction resided within the individual. Satisfaction has been seen as being

related to the degree of individual need attainment.

Schaffer (1953:3) theorized that overall job satisfaction was directly related to the degree to which an individual's needs that could be satisfied in the job situation were actually satisfied.

Maslow (1970) described satisfaction as a hierarchical arrangement of needs. An individual was seen as proceding through the hierarchy from the lower physiological needs toward the highest level, self-actualization. Arranged in order from lowest to highest the need categories were physiological, safety and security, belonging, love and social activity, esteem and self-fulfillment. It was postulated that an individual would move from a lower level need to a higher level when the lower level need was fulfilled to an adequate degree.

Porter and Lawler (1975) modified Maslow's hierarchy by suggesting that the satisfaction hierarchy could be viewed as having two distinct categories. Porter and Lawler (1975) grouped the lower level physiological and security needs into the lower level of the two step hierarchy. It was suggested that these needs were satisfied by outcomes which were external to the individual. Maslow's higher level needs were placed in the higher level of the two step hierarchy. Needs at this level were seen to be satisfied by outcomes which were internal to the person.

Herzberg (1959:5-7) in his Two Factor Theory of job satisfaction perceived the determinants of job satisfaction and dissatisfaction as being solely in the job itself. Herzberg (1959:44-49) contended that the factors that contributed to satisfaction were different from those factors which contributed to dissatisfaction.

Job satisfaction and job dissatisfaction in the Herzberg model were not seen as opposites but rather as completely different phenomena.

Herzberg et al (1959) identified motivators as one set of factors related to job content. Herzberg's motivators included achievement, recognition, work itself, responsibility, and advancement. A second set of factors called hygienes were related to the environmental setting. Hygiene factors included policy and administration, interpersonal relations, supervision, salary, working conditions, status, security, possibility of growth and personal life. The fulfillment of the hygiene factors were seen to prevent dissatisfaction but could not contribute to satisfaction. The fulfillment of the motivator factors could lead to job satisfaction.

A third category of job satisfaction theory links satisfaction to both individual characteristics and the work environment. This approach to satisfaction is termed the interactionist framework. Theorists of this framework emphasize the subjective processes which occur within the individual in the work environment.

An example of interaction theory is the equity theory. Lawler (1973) indicated that in this theory the degree of satisfaction is determined by the perceived ratio of what a person receives from his job relative to his inputs into the job. The major processes identified by the equity theory are perceived Input-Outcome Balance and Social Comparison.

In Input-Outcome Balance, inputs are the attributes brought to the job while outcomes are what an individual receives for his inputs. Inequity may be perceived to occur when the ratio of outcomes

to inputs is unequal.

Social Comparison involves a comparison of one's inputs and returns with the perception of those of another person.

RELATED RESEARCH

Related Organizational Climate Research

The studies reviewed in this section relate to the study of organizational climate and the relationship between perceived organizational climate and other external variables. Owens and Steinhoff (1969) utilized Stern's Organizational Climate Index in a study of twenty-one New York City schools to determine climate differences in schools participating in a special project entitled the More Effective Schools Project (MES). The study concluded that wide differences existed in the MES schools. Schools with high Developmental Press had relatively high concentrations of Puerto Rican and white pupils. In contrast, in schools with high percentages of black pupils, teachers perceived the climate to contain high levels of impulse control (Owens and Steinhoff 1969:261).

Steinhoff and Bishop (1974) utilized the Organizational Climate Index in a study of seven hundred fifty-seven full-time and part-time graduate students. Steinhoff and Bishop (1974:48) concluded that of the forty-two institutions which participated in the study only three manifested the environmental characteristics deemed ideal by graduate students, and then only in direction rather than degree.

In an evaluation of results from 1,076 subjects using the High School Characteristics Index, College Characteristics Index, and

the Organizational Climate Index, Stern (1971) identified common traits of specific school types. Stern (1971:9-10) concluded that schools with high development scores are commonly small, elite, non-sectarian, private, residential, experimental, or undergraduate liberal arts colleges. High developmental schools had more women than men, lower staff student ratios, more instructors with Ph.D.'s or larger libraries. High development schools also were characterized by brighter students and more distinguished graduates.

Low development schools were either small unaccredited schools with limited resources or large public institutions with many programs.

High development schools reported significantly fewer problems with staff and students than high control schools. High control schools were of two types: one type exhibited an extensively organized peer culture while the other type manifested high levels of group cohesiveness and administrative supervision.

Secondary schools with high development scores were private, experimental, laboratory schools or public schools in more educated communities.

Payne and Pheysey (1971) reconceptualized Stern's Organizational Climate Index (OCI) according to the concepts appropriate to the business organization. The resulting instrument was called the Business Organization Climate Index and was tested on a sample of one hundred and twenty junior managers from more than one hundred different companies. Factor analysis of the results indicated that the two main factors which distinguished business organizational climates were organizational progressiveness and normative control.

Choo (1976) studied the relationship of intelligence, sex, and selected home background variables with student perceptions of high school environment as determined by the High School Characteristics Index (HSCI) developed by Stern. An additional aspect of the study was to investigate the independence of the Activities Index of personal needs and the High School Characteristics Index of environmental pressures.

The sample consisted of three hundred thirty-five fourth year students in four government senior high schools in metropolitan Perth, Australia. The results indicated that student perceptions of their environment were influenced by their sex, intelligence, educational aspirations, mother's occupation, and personality. Choo (1976:209) noted that historically the High School Characteristics Index has been used to measure the overall environment of a school rather than individual perceptions of the environment. The results of Choo's study (1976:209) suggested that more emphasis should be given to individual differences in the perceptions of the environment and that the appropriate unit of analysis is the individual rather than the total school environment. Choo (1976:209) did not rule out the use of the High School Characteristics Index to measure total school environments by pointing to the weak nature of the significant correlations between the High School Characteristics Index scales and the student variables. Choo states, "This suggests that the individual differences in perceptions of the environments of the school are unimportant; that is, individuals tend to agree in their perceptions of the environment". The study conducted by Choo also showed that the Activities Index and the High School Characteristics Index, although parallel instruments,

were factorially independent of each other indicating that student's perceptions of the school environment were largely independent of their personalities.

Feldvebel (1963) used the Organizational Climate Description Questionnaire developed by Halpin and Croft in a study of thirty schools in northeastern Illinois. The researcher was interested in the relationship between the organizational climate as described by the Organizational Climate Index and student socio-economic status and student achievement level. The results indicated that the overall climate as depicted by the Organizatinal Climate Description Index was not related to the socio-economic status of the community. However, the Hindrance and Consideration subtests, which is a description of the principal's behavior, was significantly associated with the class of the community. A second finding indicated that a positive relationship did exist between pupil achievement and the Production Emphasis and Consideration subtest scores of the OCDQ.

Related Satisfaction Research

Satisfaction scores in this research project were related to a number of student variables including age, sex, years within the organization, achievement, attendance and perceived organizational climate. Although this research project dealt with high school students, some parallel studies of job satisfaction with adults are available for the purposes of comparison.

Research by Porter and Lawler (1968), Wild and Dawson (1976) and Rice (1978) indicate that increases in satisfaction accompany

increases in the age of adult subjects. In this research project the range of age differences among students is between one and four years, a much shorter time period than the range of age differences in the studies previously cited.

Job satisfaction of males and females in equivalent positions is more similar than different. Studies by Deaux (1974) and Korman (1971) pointed to similarities. A study by Lawler (1971) reported that in situations of comparable pay, females were more satisfied than were males. Rice (1978) in a study of principal's satisfaction indicated similar significant sex differences existed in the degree of satisfaction of male and female principals.

The relationship between job satisfaction and organizational climate was investigated by Schneider and Snyder (1975) in a study of fifty life insurance companies involving five hundred twenty-two individuals. Schneider and Snyder (1975:327) concluded that organizational climate and satisfaction were not equivalent, and stated that organizational climate measures which are specifically designed to reflect organization/descriptive rather than individual/evaluative differences would reveal even greater differences between the two constructs. It should be noted that the ESI which was used in this research project is a descriptive measure of climate.

Schneider and Snyder (1975:326) noted that climate and satisfaction were definitely correlated thereby indicating that a relationship existed between the characteristics of the organization as perceived by employees and the individual evaluation of the organization.

Schneider and Snyder (1975:326) also concluded that persons

who had positive descriptions of the climate of their organization were not necessarily the most satisfied.

Another conclusion of the research of Schneider and Snyder (1975:326) was that satisfaction perceptions were more closely related with turnover data than were perceptions of climate.

Hypotheses

The following are the fifteen major hypotheses developed to guide this research project.

Hypotheses Concerning the Elementary and Secondary School Environment Index (ESI)

1. There are no significant differences between the mean scores on the ESI as determined by the school under study and the norms established for the ESI.
2. There are no significant differences in the perceptions of the school's organizational climate by students enrolled in different programs of studies at the school under study.
3. There are no significant sex differences in the perceptions of the organizational climate of the school under study as determined by the ESI.
4. There are no significant differences in the perceptions of the organizational climate of the school under study by students grouped according to their future plans.
5. There are no significant relationships between the organizational climate subscales of the ESI and the age of the students.

6. There are no significant relationships between the organizational climate subscales of the ESI and the number of years students have attended the school under study.
7. There are no significant relationships between the organizational climate subscales of the ESI and the average marks of students attending the school under study.
8. There are no significant relationships between the organizational climate subscales of the ESI and the number of classes students at the school under study had missed more or less deliberately.
9. There are no significant relationships between the organizational climate subscales of the ESI and the satisfaction scores.

Hypothesis Concerning Satisfaction Scores

10. There is no significant sex difference in satisfaction scores as determined by the student information questionnaire.
11. There are no significant differences in satisfaction scores of students grouped according to their future plans.
12. There are no significant relationships between the satisfaction scores and student age.
13. There are no significant relationships between the satisfaction scores and the number of years students have attended the school under study.
14. There are no significant relationships between the satisfaction scores and the average mark of students in the school under study.

15. There are no significant relationships between the satisfaction scores and the number of classes missed more or less deliberately by students in the school under study.

CHAPTER 3

INSTRUMENTATION AND DATA COLLECTION

Instrumentation

The Elementary and Secondary School Environment Index and the Student Information Questionnaire were the two instruments which were used for this research project. The Elementary and Secondary School Environment Index was used to measure the perceived organizational climate of the school under study. The ESI was designed by George Stern to measure and to interrelate the personality or needs of the individual with the psychological characteristics or press of the environment in which the individuals go to school. In addition to its use in secondary schools, the ESI may also be used at the grades four to six levels in elementary schools.

The Elementary and Secondary School Environment Index is based on thirty need press scales (Appendix C) dealing with a wide variety of personal needs and environmental demands. These thirty need press scales have a structure which is represented by seven first order factors (Table 1).

The seven first order institutional dimensions were combined to produce second order area scores.

Area I - Developmental Press

This area was a combination of Intellectual Climate, Expressiveness, Group Social Life, Personal Dignity, Supportiveness and Achievement Standards. Schools with high scores in Area I emphasized

TABLE 1

ESI FIRST ORDER FACTOR DEFINITIONS

FIRST ORDER SCORES

1. Intellectual Climate

   The items that comprise this factor are intended to reflect the qualities of a staff and plant specifically devoted to scholarly activities in the humanities, arts, and social sciences. A high score indicates a great deal of attention to these areas by the school and implies the presence of such facilities as good libraries and laboratories. In such a school, "long, serious discussions are common among the students," "many students would be interested in hearing a talk by a famous scientist," "course offerings and faculty in the social sciences . . . in the natural sciences . . . are outstanding," etc.
   (Fantasied Achievement, Humanities/Social Sciences, Reflectiveness, Ego Achievement, Science, Understanding)

2. Expressiveness

   This factor primarily suggests a form of aesthetic awareness and emotional participation. It is concerned with opportunities offered to the student for the development of leadership potential and self-assurance. Among the activities serving this purpose are debates, projects, student drama and musical productions, and other forms of participation in highly visible creative arts.
   (Change, Sensuality, Humanities/Social Science)

3. Group Social Life

   The environment implied by high scores on this factor is fun-loving, friendly, and actively outgoing. Mutually supportive group activities among the student body are common and take on a warm, friendly character, more or less typifying adolescent togetherness.
   (Play, Emotionality, Affiliation, Nurturance, Exhibitionism)

4. Personal Dignity/Supportiveness

   Schools with high scores on this factor encourage autonomy among students but also allow for the expression of dependency and defensiveness that is often found in elementary and secondary

schools, "teachers take an interest in the students," and do not make them feel like babies. Such climates tend to be non-authoritarian and allow high levels of self-determination. (Assurance, Defensiveness, Objectivity, Blame Avoidance, Tolerance, Supplication)

5. Achievement Standards

Schools with high scores on this factor set high standards of achievement for their students. In such schools, "most students take their school work seriously," "students work hard at everything they do -- in and out of school," and "teachers put a lot of hard work and enthusiasm into their teaching." (Counteraction, Understanding, Conjunctivity, Energy, Achievement)

6. Orderliness/Control

High scores on this factor are associated with administrative structure or regulatory orderliness. In such environments "students have to be neat and clean when they come to school," and "there is a place for everything and everything is kept exactly where it belongs." (Deference, Harm Avoidance, Deliberativeness, Narcissism, Orderliness)

7. Peer Group Dominance

High scores on this factor are suggestive of an environment in which peer group relations are strong valued. In such schools "it is important to be friends with the right people," and "you have to do what everybody else does in order to get along around here." (Practicalness, Sex)

Taken from Test Manual for The Elementary and Secondary School Environment Index, George Stern, 1973.

intellectual achievement, personal development, warmth and respect rather than a more institutionalized approach to high school education. Area II - Orderliness/Control and Area III - Peer Dominance were essentially replications of the first order scores.

The ESI contained sixty-one True-False items (Appendix A). The sixty-one items were statements regarding school life. The respondent was asked to indicate whether or not the statement given was generally true about the respondent's school or whether or not the given statement might happen at the respondent's school. The questionnaire elicited the perceptions of the individual regarding his school environment. In responding to the questionnaire, the respondent was limited by his perceptions of the situation.

Scoring the ESI

In calculating the scores for each of the seven first order factors, the answers of the respondents were compared with an answer key. A score of one was attached to each item where the respondent's answer was the same as the one given in the answer key.

Each of the first seven factors was made up of ten items, with some of the sixty-one items used for more than one factor. The factor score was the number of respondent's answers out of the possible ten items for each factor which agreed with the answers in the answer key.

Table 2 is an example of the scoring procedure for one respondent on one factor.

Table 3, the answer key, was used to establish each respondent's first order factor scores.

Area scores for the ESI, Developmental Press, Orderliness/

TABLE 2

ELEMENTARY AND SECONDARY SCHOOL CHARACTERISTICS INDEX

SHORT FORM ESI-1273SF

HANDSCORING GUIDE

Calculation of Factor Scores

There are seven factors, each consisting of ten items. To score any factor, compare the respondent's answers on the items in that factor with the key. Assign a 1 to each item where the answer is the same as the key. The number of such items is the respondent's score on that factor.

The following example illustrates this procedure for Factor 1.

E.G.

ITEM	KEY	RESPONDENT'S ANSWER	ITEM SCORE
10	T	T	1
13	F	T	0
15	T	F	0
16	F	T	0
21	F	F	1
28	F	F	1
29	T	F	0
51	T	F	0
53	T	T	1
54	T	F	0

Score for Factor 1 = 4

Calculation of Area Scores

There are three areas. The following formulas are used to calculate scores on these areas. Let F1 = respondent's score on Factor 1 etc.; then:

Area I = F1 + F2 + F3 + F4 + F5
Area II = F6
Area III = F7

Taken from Test Manual for The Elementary and Secondary School Environment Index, George Stern, 1973

TABLE 3

ELEMENTARY AND SECONDARY SCHOOL CHARACTERISTICS INDEX

SHORT FORM

FORM ESI - 1273SF

KEY

Factor 1		Factor 2		Factor 3		Factor 4		Factor 5		Factor 6		Factor 7	
Item	Key	Item	Key	Item	Key	Item	Key	Item	Key	Item	Key	Item	Key
10	T	1	T	4	T	3	T	5	T	8	T	2	T
13	F	7	T	9	T	11	F	6	T	22	T	19	T
15	F	13	F	12	T	17	F	16	F	23	F	24	T
16	F	18	F	14	T	34	F	20	T	30	F	27	T
21	F	21	F	25	T	36	F	35	T	38	T	36	T
28	F	26	T	32	T	41	F	37	T	40	T	43	T
29	T	28	F	33	T	44	T	44	T	42	F	45	T
51	T	31	F	56	F	46	F	46	F	47	T	52	T
53	T	39	T	57	T	49	F	53	T	48	T	55	T
54	T	58	F	59	T	60	F	54	T	50	T	61	T

Taken from Test Manual for the Elementary and Secondary School Environment Index, George Stern, 1973.

Control and Peer Group Dominance were calculated after the first order scores were completed. Area I or Developmental Press was determined by adding the scores achieved in Intellectual Climate, Expressiveness, Group Social Life, Personal Dignity, Supportiveness, and Achievement first order factors. Areas II and III were the same as the last two first order factors, Orderliness/Control and Peer Group Dominance.

Norms and Reliabilities for the ESI

The ESI is the most recent of the Syracuse Indexes. Although some information is available regarding the other Indexes, no literature is available at this time for the ESI. The only information available from Syracuse is the test manual for the ESI. Although the ESI is a recently developed questionnaire, norms (Table 4) and reliabilities (Table 5) have been supplied with the test manual.

The Student Information Questionnaire was the second instrument utilized in this research project (Appendix B). Developed specifically for the purposes of this research project, the Student Information Questionnaire was designed to provide the researcher with two types of information.

The first type of information which the Student Questionnaire yielded was information regarding student background. Respondents to the questionnaire were asked to indicate their age, their sex, their program of studies, the number of years spent in the school being studied, and their average overall mark. Respondents were also asked to indicate their future plans and the number of classes they had missed more or less deliberately. It was felt that information of this

TABLE 4

ELEMENTARY AND SECONDARY SCHOOL ENVIRONMENT INDEX

FORM ESI - 1273SF

Total Individual Norms

(N=1117)

(Total) NASP ESI DATA

Factor	Mean	Standard Deviation
1. Intellectual Climate	5.786	2.463
2. Expressiveness	6.231	2.240
3. Group Social Life	6.432	2.273
4. Personal Dignity	7.149	2.411
5. Achievement Standards	6.245	2.389
6. Orderliness/Control	4.103	2.153
7. Peer Group Dominance	4.782	2.406
Area		
1. Development Press	31.843	8.898
2. Orderliness/Control	4.103	2.153
3. Peer Group Dominance	4.782	2.406

Individual Norms by Age

	Age 12 and Under		Age 13 - 15		Age 16 and Over	
Factors	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
1	4.939	2.138	5.729	2.372	6.366	2.550
2	5.661	1.891	6.056	2.206	6.689	2.368
3	6.878	2.181	6.313	2.277	6.211	2.292
4	6.419	2.258	7.095	2.552	7.650	2.305
5	6.297	2.382	5.944	2.380	6.381	2.388
6	4.572	2.112	3.905	2.158	3.911	2.133
7	5.226	2.386	4.729	2.488	4.524	2.335
Area						
1	30.193	7.726	31.137	9.064	33.306	9.285
2	4.572	2.112	3.905	2.158	3.911	2.133
3	5.226	2.386	4.729	2.488	4.524	2.335

Taken from Test Manual for The Elementary and Secondary School Environment Index, George Stern, 1973.

TABLE 5

ELEMENTARY AND SECONDARY SCHOOL ENVIRONMENT INDEX

RELIABILITIES - FORM ESI-1273SF

Factor	Alpha Reliability Coefficients
1. Intellectual Climate	0.74
2. Expressiveness	0.72
3. Group Social Life	0.81
4. Personal Dignity	0.77
5. Achievement Standards	0.80
6. Orderliness/Control	0.71
7. Peer Group Dominance	0.73

Area	Alpha Reliability Coefficients
1. Development Press	.89
2. Orderliness/Control	.71
3. Peer Group Dominance	.73

Taken from Test Manual for The Elementary and Secondary School Environment Index, George Stern, 1973.

nature was later used to provide some insights into how these characteristics may have affected a respondent's perceptions of the organizational climate of the school.

The second type of information elicited on the Student Information Questionnaire was a rating of student satisfaction with a number of variables within their environment. Students were asked to rate their satisfaction with their relationships with classmates, teachers, the student body in general, the counsellor, the principal and the administrator. Students were also asked to rate their satisfaction with their progress, their quality of work, their participation in extracurricular activities and decision-making and their overall satisfaction with their school.

Students were asked to rate each area on a six point satisfaction scale ranging from highly satisfied to highly dissatisfied. The scores obtained were related to the other student background information which was collected on the Student Information Questionnaire. Satisfaction scores on the Student Information Questionnaire were compared with organizational climate scores obtained from the ESI.

The Student Information Questionnaire was piloted at a second Edmonton area high school before it was used in the research project at the high school being studied.

The Sample

The sample for this research project consisted of all the high school students who were in attendance at the school being studied on the morning of June 13, 1979. The sample consisted of two

hundred and seventy students out of a total high school population of four hundred and twenty-six students.

Of the two hundred and seventy questionnaires completed, a total of five questionnaires were incomplete on the Student Information Questionnaire. One questionnaire was discarded because it was unusable.

The school being studied was unique in that it operated a special vocational program of studies for high school students who were experiencing difficulties in school. The special vocational program had a strict entrance policy with stringent entrance criteria. Students who entered this program were required to have a WISC (R) IQ between 75 and 95. A second criterion for entrance into the special vocational program was low achievement in language arts and mathematics. Appropriate behavior and regular attendance were also entrance requirements for the special vocational program. The students who were in the special vocational program identified themselves as being either in the special vocational program or in the vocational program. For this reason, both terms were used on the Student Information Questionnaire and were combined for data analysis.

The school under study also offered a matriculation program of studies and a general-business program of studies. Difficulty in differentiating between general students and business students, except in the title itself, resulted in the combining of these two intertwined programs of study into one for data processing.

Data Collection

The questionnaires were administered to all students present on

the morning of June 13, 1979. Students were assembled in the cafeteria of the school by grade where they completed the questionnaire under the supervision of the vice principal and teachers of the school. No time limit was set for the completion of the questionnaires. To assure complete anonymity, students were not required to identify their questionnaires.

The ESI was completed on an answer sheet prepared especially for this research project by the researcher rather than the computer answer sheet provided for the ESI. This procedure was followed to complete the data processing and interpretation at the University of Alberta. As a result, alternate directions were constructed for the completion of the ESI (Appendix A).

Description of the Sample

The sample for the study was chosen for a number of reasons. The school under study had several unique features. It operated a junior and senior high school from within the same building. It was one of a limited number of high schools which provided a special education program at the high school level and it had a relatively small high school student population.

The familiarity of the researcher with the school under study was also a factor which determined the choice of the sample for this research project. The researcher had previously worked at the school under study and was familiar with many of the students and the teachers.

Tables 6 through 17 provide in a tabular manner an in-depth

description of the students who participated in this research project. The information on the tables covers a range of statistical descriptions of the composition of the sample as well as descriptions of the sample in terms of their perceptions and their future plans and aspirations.

The information in Table 6 outlines the distribution of the student and sample populations. The sample of two hundred and seventy students was 63% of the total high school population. The high school population is the predominant student population of the school under study: the junior high school student population numbered only one hundred and fifty-five.

The data in Table 7 indicates the distribution of the students by their program of studies and the distribution of the sample by their program of studies. The sample populations average approximately 60% of the total student population in each program. The total student population in each program was determined by evaluating each individual student's program of studies. No definitive numbers of students by their program of studies were available from the school under study.

There was only a slightly higher percentage of girls (55.9%) than boys (44.1%) in the matriculation program as indicated in Table 8. There was a higher percentage of boys (65.0%) than girls (35.0%) in the vocational program. The general and business education program had a fairly even distribution by sex.

The distribution of students by sex and age in Table 9 showed that there were generally older males in the school under study than females. Thirty-nine percent of the male population of the school was over sixteen years of age whereas 28.5% of the female population of the

TABLE 6

Student Data
Distribution of Student Population
and Sample

Total School Population	581
Junior High Population	155
High School Population	426
Total High School Sample	270

TABLE 7

Distribution of Student Population
and Sample by Program

	Total School Population	Total Sample Population	% of Total Program Pop
Matriculation	212	137	64.6%
Business & General	148	88	59.4%
Vocational	66	42	63.6%
Total	426	267	

TABLE 8

Distribution of Students in Sample
by Sex and Program

School Program	Actual Numbers and Percentages Male	Female	Total
Matriculation	60 44.1%	76 55.9%	136
General & Business	46 52.3%	42 47.7%	88
Vocational	26 65.0%	14 35.0%	40
Total	132	132	264

TABLE 9

Distribution of Students in Sample
by Age and Sex

Sex	Actual Numbers and Percentages Age 14 or under	15	16	17	18	19 and over	Totals
Male	2 1.5%	32 24.2%	47 35.6%	32 24.2%	16 12.2%	3 2.3%	132
Female	1 0.8%	34 25.6%	60 45.1%	24 18.0%	12 9.0%	2 1.5%	133
Totals	3 1.1%	66 24.9%	107 40.4%	56 21.1%	28 10.6%	5 2.9%	265

school was over sixteen years of age. Table 9 also illustrated that the highest percentage of students in the school being studied was sixteen years of age (40.4%) at the time of data collection.

The distribution of students in the sample by program of studies and by their age is outlined in Table 10. This data indicated that the vocational program of studies had the lowest percentage of students who were over sixteen years of age (26.2%) when compared to the other two programs of study which had approximately 34% of their student population over sixteen years of age. The length of time the vocational high school program had been in operation at the school being studied was only three years and may have had an effect on the results.

The number of years which students had attended the school under study is indicated in Table 11. Thirty percent of the student population had attended the school for more than three years. It was important to note that the school being studied was a junior high school as well as a senior high school. The second largest concentration of students consisted of those students who were new to the school. Twenty-six percent of the student population had arrived between five months and one year before the data was collected. The third concentration of students was those students who had attended the school under study between one and one-half years and two years.

The differences in the composition of the three programs of study at the school being studied is outlined in Table 12. The highest percentage of matriculation students (30.7%) were recent arrivals to the school. These students arrived between five months and one year before the data was collected, probably from a neighboring junior high

TABLE 10

Distribution of Students in Sample
by Age and Program

	Age						
	Actual Numbers and Percentages						
Program	14 and under	15	16	17	18	19 and over	Totals
Matriculation	0 0.0%	30 21.9%	60 43.8%	33 24.1%	13 9.5%	1 0.7%	137
General & Business	2 2.3%	24 27.3%	32 36.4%	17 19.3%	10 11.4%	3 3.4%	88
Vocational	1 2.4%	13 31.0%	17 40.5%	6 14.3%	4 9.5%	1 2.4%	42
Total	3 1.1%	67 25.1%	109 40.8%	56 21.0%	27 10.1%	5 1.9%	267

TABLE 11

Distribution of Student in Sample by
Number of years in the School under Study and Sex

	Number of years in the school under study Actual Numbers and Percentages							
Sex	Less than 5 mon	5 mon 1 year	1 year 1.5 years	1.5 years 2 years	2 years 2.5 years	2.5 years 3 years	over 3 years	Total
Male	6 4.5%	36 27.3%	1 0.8%	29 22.0%	3 2.3%	16 12.1%	41 31.0%	132
Female	3 2.3%	33 24.8%	4 3.0%	30 22.6%	10 7.5%	16 12.0%	37 27.8%	133
Total	9 3.4%	69 26.0%	5 1.9%	59 22.3%	13 4.9%	32 12.1%	78 29.4%	265

TABLE 12

Distribution of Students in Sample by
Number of years in the School under Study and Program

Program	Number of years in the school under study Actual Numbers and Percentages Less than 5 mon	5 mon 1 year	1 year 1.5 years	1.5 years 2 years	2 years 2.5 years	2.5 years 3 years	over 3 years	Total
Matriculation	1 0.7%	42 30.2%	2 1.5%	41 20.9%	5 3.6%	18 13.1%	28 20.4%	137
General & Business	3 3.4%	19 21.6%	3 3.4%	12 13.6%	5 5.7%	11 12.5%	35 39.7%	88
Vocational	5 11.9%	8 19.0%	1 0.0%	8 19.0%	3 7.1%	3 7.1%	15 35.7%	42
Total	9 3.4%	69 25.8%	5 1.9%	61 22.8%	13 4.9%	32 12.0%	78 29.2%	267

school for grade ten matriculation. In contrast, the greatest concentration of students in the general and business program of studies and the vocational program of studies had been enrolled in the school for over three years. Sixty-two percent of the sample matriculation students had attended the school being studied for less than two years prior to the data collection. In contrast, 42% of the business and general students and 49.9% of the vocational students had attended the school less than two years prior to the data collection.

In Table 13 is shown the average marks of students by sex. This table was constructed using data given by the students. There appeared to be little which differentiated the two sex groups regarding their average marks; however, at both ends of the scale there were more males than females. Five percent of the males compared to 0.0% of females had average marks below 40%. Seven percent of the males compared to 3.1% of the females had average marks higher than 80%.

In Table 14 student marks in the context of the student program of studies are presented. This table was constructed using data given by the students. There were marked differences among the three programs of study. In a comparison of marks above 60%, 84% of the general and business students indicated achievement at this level. Sixty-nine percent of the vocational students and 60% of the matriculation students recorded their achievement as being above 60%. Interestingly, 0.7% of the matriculation students indicated an average mark of over 80% whereas 6.8% of the general and business students and 11.9% of the vocational students indicated average marks at this level. Fifty-one percent of the general and business students indicated their average

TABLE 13

Distribution of Students in Sample
by Average Mark and Sex

	Average Mark of Students Actual Numbers and Percentages							
Sex	Below 40%	40% 50%	50% 60%	60% 70%	70% 80%	80% 90%	over 90%	Total
Male	7 5.3%	8 6.1%	24 18.2%	47 35.6%	38 28.8%	6 4.5%	2 1.5%	132
Female	0 0.0%	8 6.0%	31 23.3%	49 36.8%	41 30.8%	3 2.3%	1 0.8%	133
	7 2.6%	16 6.0%	55 20.8%	96 36.2%	79 29.8%	9 3.4%	3 1.1%	265

TABLE 14

Distribution of Students in Sample
by Average Mark and Program

Program	Average Mark Actual Numbers and Percentages Below 40%	40% 50%	50% 60%	60% 70%	70% 80%	80% 90%	over 90%	Total
Matriculation	2 1.2%	13 9.5%	37 27.0%	59 43.1%	25 18.2%	1 0.79%	0 0.0%	137
General & Business	2 2.3%	3 3.4%	9 10.2%	23 26.1%	45 51.1%	5 5.7%	1 1.1%	88
Vocational	3 7.1%	0 0.0%	10 23.8%	15 35.7%	9 21.4%	3 7.1%	2 4.8%	42
Total	7 2.6%	16 6.0%	56 21.0%	97 36.3%	79 29.6%	9 3.4%	3 1.1%	267

marks were between 70% and 80%. In comparison, far fewer students enrolled in the other two programs of study indicated average marks between 70% and 80%.

The class attendance habits of males and females in the school under study are presented in Table 15. Students were asked to indicate the number of classes they had missed more or less deliberately in the current semester. Table 15 indicated that many students had missed more than thirteen classes more or less deliberately and with the bulk of the students missing between four and ten classes each. A higher percentage of males (27.3%) than females (18.0%) had missed more than thirteen classes more or less deliberately. A higher percentage of females (28.6%) than males (19.7%) had missed between seven and ten classes more or less deliberately.

In Table 16 the number of classes missed as indicated in Table 15 is related to the students' programs of studies rather than the students' sex. The table showed interesting differences among the programs of study. A lower percentage of students in matriculation (46.7%) missed more than six classes more or less deliberately than did students in the general and business program (59.0%) or the vocational program (50.6%).

The future plans and aspirations of the students of the sample by their sex are indicated in Table 17. Males seemed significantly more interested in technical or vocational training than did females. Females seemed more interested in attending a junior college after graduation. A high percentage of students, both male and female, planned to find jobs after graduation from high school or planned to

TABLE 15

Distribution of Students in Sample
by Classes-missed and Sex

Number of Classes-missed
more or less deliberately - current semester

Actual Numbers
and
Percentages

Sex	None	1-3	4-6	7-10	11-13	more than 14	Total
Male	9 6.8%	22 16.7%	33 25.0%	26 19.7%	6 4.5%	36 27.3%	132
Female	5 3.8%	27 20.3%	29 21.8%	38 28.6%	10 7.5%	24 18.0%	133
Total	14 5.3%	69 18.5%	62 23.4%	65 24.2%	16 6.0%	60 22.7%	265

TABLE 16

Student Data
Distribution of Students in Sample
by Classes-missed and Program

Number of Classes-missed more or less deliberately - current semester

Actual Numbers and Percentages

Program	None	1-3	4-6	7-10	11-13	more than 13	Total
Matriculation	9 6.6%	28 20.4%	36 26.3%	26 19.0%	7 5.1%	31 22.6%	137
General & Business	2 2.3%	13 14.8%	21 23.9%	22 25.0%	6 6.8%	24 27.3%	88
Vocational	3 7.1%	9 21.4%	5 11.9%	15 35.7%	4 9.5%	6 14.3%	42
Total	14 5.2%	50 18.7%	62 23.2%	63 23.6%	17 6.4%	61 22.9%	267

TABLE 17

FUTURE PLANS OF STUDENTS

Distribution of Students in Sample
by Future Plans and Sex

Sex	Leave school before graduation	Graduate then Find Work	Go to Tech/Voc Training after High School	Attend A Junior College after High School	Enter University	Other	Total
	Actual Numbers and Percentages						
Male	4 3.0%	35 26.5%	36 27.3%	5 3.8%	36 27.3%	16 12.1%	132
Female	2 1.5%	45 33.8%	12 9.0%	15 11.3%	40 30.1%	19 14.3%	133
Total	6 2.3%	80 30.2%	48 18.1%	20 7.5%	76 28.7%	35 13.2%	265

TABLE 18

Distribution of Students in Sample
by Future Plans and Program

Program	Leave School Before Graduation	Graduate Then Find Work	Go to Tech/Voc Training	Attend A Junior College	Enter University	Other	Total
	Actual Numbers and Percentages						
Matriculation	1 0.7%	23 16.8%	26 19.0%	8 5.8%	65 47.4%	14 10.2%	137
General & Business	2 2.3%	39 44.3%	18 20.5%	9 10.2%	5 5.7%	15 17.0%	88
Vocational	3 7.1%	19 45.2%	6 14.3%	3 7.1%	5 11.9%	6 14.3%	42
Total	6 2.2%	81 30.3%	50 18.7%	20 7.5%	75 28.1%	35 13.1%	267

enter university after graduation.

The future plans and aspirations of the students in the sample by their program of studies are illustrated in Table 18. The highest percentage of matriculation students (47.4%) wished to enter university. The highest percentage of vocational students (45.2%) and general and business students (44.3%) planned to find jobs after graduation.

Statistical Techniques

Three statistical procedures were used in the analysis of data. The statistical procedures were a "t" test between means, a Scheffe test between means, and Pearson Product Correlations. A significance level of .05 was established for rejection of the null hypothesis generated for this research project.

A "t" test was used in the determination of Hypotheses One, Three and Ten to compare the mean scores of two groups. In Hypothesis One, the sample mean scores were compared with norms provided with the ESI. In Hypotheses Three and Ten, a "t" test was used to compare male and female mean scores. In Hypothesis Three the mean scores were on the ESI. In Hypothesis Ten the mean scores were on the satisfaction portion of the Student Information Questionnaire.

Analysis of variance was used in the determination of Hypotheses Two, Four, and Eleven. In each of these hypotheses an analysis of variance enabled the researcher to compare the mean scores of a number of groups to determine significant differences between and among the groups. Hypothesis Two was developed to determine if significant differences existed in the perceptions of the organizational climate of

the school by the students who were enrolled in the different programs of study. This hypothesis was tested by an analysis of variance of mean scores on the subtests of the ESI. Where the hypothesis was rejected, further analysis utilizing a Scheffe Procedure was performed to determine in what manner the groups differed significantly from each other. In Hypothesis Four students were grouped according to future plans and aspirations and the mean scores of the groups on the subtests of the ESI were compared for significant differences. In Hypothesis Eleven the mean scores of students grouped according to future plans on the Student Information Questionnaire were compared for significant differences.

The remaining hypotheses dealt with the relationships between the variables under study. Hypotheses Five, Six, Seven, Eight and Nine dealt with the relationships between scores on the ESI and student variables. Hypotheses Twelve, Thirteen, Fourteen and Fifteen dealt with the relationship between satisfaction scores as indicated on the Student Information Questionnaire and other student variables. In these cases Pearson Product Correlations were used to determine the degree of relationship between variables.

CHAPTER 4

ANALYSIS OF THE DATA AND DISCUSSION OF THE RESULTS

The fundamental premise underlying this research project was that within a school organization there are many different organizational climates. These organizational climates are found at different levels of the school organization. This research project concentrated on one level of the school organization, the student level.

Data were collected from two hundred and sixty-nine respondents using the questionnaires described in Chapter 2. The data has been analyzed to test the fifteen null hypotheses which were stated in Chapter 2.

The fifteen null hypotheses which were developed for this research project can be categorized into two main groups. Nine hypotheses were concerned with the Elementary and Secondary School Environment Index and the remaining six hypotheses were concerned with the satisfaction scores as determined by the Student Information Questionnaire.

HYPOTHESES CONCERNING THE ELEMENTARY AND SECONDARY ENVIRONMENT INDEX

Hypothesis One

Hypothesis One stated that there were no significant differences between the mean scores on the ESI as determined by the school under study and the norms established for the ESI. The mean scores, the standard deviations on the ESI, for the school under study and the

norms provided for the ESI are presented in Table 19. Significance for the differences between the mean scores was established at the .05 level.

The mean scores of the school under study differed significantly from the norms established for the ESI in all factors and areas except factor six, Area II, Orderliness/Control. Students in the school under study perceived their environment to be significantly lower than the norms in intellectual climate, expressiveness, group social life, personal dignity, and achievement standards. The students also perceived the peer group dominance within the school to be significantly higher (mean score 6.63) than the norms which were provided.

The school studied was also characterized by significantly lower scores in Area I Developmental Press (21.23). Hence Hypothesis One was rejected in all areas of the ESI with the exception of factor six, Area II Orderliness/Control.

Discussion of Hypothesis One. The students in this sample perceived the climate of the school to be significantly lower than the established norms in a number of areas. One interpretation of the results would center on an interpretation of the three area scores. Stern (1971:2-25) stated that Developmental Press, a combination of factors one through five, denoted the overall capacity of the school organization to support, satisfy and enhance self-actualization. Schools such as the school under study which exhibited low scores in this area were seen as institutionalized with an adjustment oriented approach to high school education.

This feature of the school was combined with a significantly

TABLE 19

Elementary and Secondary School Environment Index
Comparison of Mean Scores with Norms

ESI	Norms ESI N=1117 Mean	Norms ESI N=1117 Std. Dev.	Sample School Scores N=269 Mean	Sample School Scores N=269 Std. Dev.
First Order Scores				
Factor 1 (Intellectual Climate)	6.37	2.55	3.44*	2.15
Factor 2 (Expressiveness)	6.70	2.37	3.42*	1.97
Factor 3 (Group Social Life)	6.21	2.29	5.17*	2.44
Factor 4 (Personal Dignity)	7.65	2.30	5.31*	2.44
Factor 5 (Achievement Standards)	6.38	2.39	3.90*	2.57
Factor 6 (Orderliness/Control)	3.91	2.13	3.71	2.57
Factor 7 (Peer Group Dominance)	4.52	2.34	6.63*	2.15
Second Order Scores				
Area I (Development Press)	33.30	9.29	21.23*	8.71
Area II (Orderliness/Control)	3.91	2.13	3.71	2.06
Area III (Peer Group Dominance)	4.52	2.34	6.63*	2.15

*Difference between means is significant at the .05 level

high score in factor seven, Area II, peer group dominance (6.63) which illustrated that a high degree of value was perceived to have been placed on peer group relations.

Area III Orderliness/Control score (3.71) illustrated a perception by the students of an average degree of administrative structure and regulatory orderliness. Control seemed to be particularly evident within the peer group rather than through administrative regulation.

When dealing with standardized instruments the appropriateness of the norms provided has always been a concern. The norms for the ESI, a recently developed instrument, were established through studies which were conducted in the United States. Therefore, the instrument did not pertain specifically to the Alberta educational scene. In addition, the availability of a description of the norming population and the relative size of the norming population might be viewed as a weakness of the use of the norms for strict comparison purposes.

Hypothesis Two

Hypothesis Two was that there were no significant differences in the perceptions of the organizational climate of the school by the students who were enrolled in the different programs of study at the school being examined.

The mean scores and "F" test results on the ESI for students who were grouped by their program of studies are presented in Table 20. The data presented in Table 20 indicate significant differences in the perceptions of the student groups in a number of areas. A significance

TABLE 20

Elementary and Secondary School Environment Index
Analysis of Variance

ESI	Program of Studies (1) Matriculation N=137	(2) General N=88	(3) Vocational N=42	F Test Results Significant Difference Between
First Order Scores				
Factor 1	3.48	3.08	4.14	Group (3 and 2)
Factor 2	3.31	3.23	4.21	Group (3 and 2) also (3 and 1)
Factor 3	5.23	5.03	5.33	No Significant Difference
Factor 4	5.82	4.75	4.88	Group (1 and 3) also (1 and 2)
Factor 5	4.14	3.22	4.62	Group (1 and 2) also (3 and 2)
Factor 6	3.82	3.35	4.12	No Significant Difference
Factor 7	6.49	6.75	6.79	No Significant Difference
Second Order Scores				
Area I	21.98	19.31	23.19	Group (3 and 2) also (1 and 2)
Area II	3.82	3.35	4.12	No Significant Difference
Area III	6.49	6.75	6.79	No Significant Difference

level of .05 was maintained throughout this portion of the study.

Students who were enrolled in the vocational program of studies perceived the intellectual climate of the school under study to be significantly higher than did those students who were enrolled in the business and general program of studies.

Students who were enrolled in the vocational program of studies perceived a significantly higher degree of expressiveness than did those students who were enrolled in the business and general program of studies or the matriculation program of studies.

There were also significant differences in how the three groups of students perceived the degree of personal dignity afforded at the school under study. Students who were enrolled in the matriculation program of studies had significantly higher scores on this factor than the other two groups of students.

Perceived achievement standards was another area in which there were significant differences between the groups of students. Both vocational and matriculation students had significantly higher scores on this factor than did students who were enrolled in the general program of studies.

The remaining three first order factors, group social life, orderliness/control and peer group dominance produced no significant differences in the perceptions of the three groups of students.

The second order Area scores brought to light one major difference among the groups of students. Students who were enrolled in the matriculation and the vocational programs of study perceived the Developmental Press of the school to be significantly higher than did

students who were enrolled in the business and general program of studies. As a consequence of this and other significant differences in the perceived organizational climate by students who were grouped according to their program of studies, Hypothesis Two was rejected. The hypothesis tended to be correct in relation to peer group dominance, orderliness/control and group social life but it did not hold true for the remaining factors and areas.

Discussion of Hypothesis Two. The data indicate that within this particular school organization there were three distinct organizational climates with a common perception within the three program of studies groups regarding the importance of the peer group and the degree of administrative control. The three groups of students had similar perceptions about the student body, its supportive abilities as indicated by factor three scores and its control orientation as indicated by scores in factors three and seven.

The individuals within the three programs of study perceived the same control features within their organizational climates. The commonality of control was suggested by similar perceptions in orderliness/control and peer group dominance.

Organizational climates differed significantly in those factors which reflected the interactions between the environment and the students of the school under study in non-control functions. In factor one, intellectual climate, vocational students perceived that the school under study attended to scholarly activities to a greater degree than did students who were enrolled in the other two programs of study.

In factor two, expressiveness, students in the vocational and

matriculation programs of study perceived greater opportunities to develop leadership and self-assurance along with a greater aesthetic awareness and emotional participation within the school environment than did individuals within the business and general program of studies.

In factor four, personal dignity, students in the matriculation program of studies perceived greater autonomy, greater teacher interest, and higher levels of self-determination in the school under study than students in the other two programs of study.

Achievement standards offered another factor in which there were significant differences between the groups of students who were enrolled in the three programs of study at the school being examined. Students who were enrolled in the general program perceived lower standards of achievement and effort than did those students who were enrolled in the business and general program of studies or the matriculation program of studies. Correspondingly, Table 14 showed that 84% of the students who were enrolled in the business and general program maintained an average mark of at least 60%.

The final and perhaps most significant difference between the groups of students was in the area of Developmental Press. Students who were enrolled in the business and general program of studies perceived their environment to be a significantly more institutionalized and adjustment oriented climate than did students who were enrolled in the other two programs of study.

Hypothesis Three

Hypothesis Three was that there were no significant sex dif-

ferences in the perceptions of the organizational climate of the school under study as determined by the ESI.

The mean scores, "t" values and probabilities for sex differentiated groups on the ESI are presented in Table 21. Female students had significantly higher scores in personal dignity, achievement standards and orderliness/control and in Developmental Press. Differences in personal dignity, achievement standards and Developmental Press were significant at the .01 level whereas differences in orderliness/control were significant at the .05 level.

There were no significant sex differences in the remaining factor and Area scores. Hypothesis Three was rejected in the areas of personal dignity, achievement standards, orderliness/control and Developmental Press.

Discussion of Hypothesis Three. Female students at the school under study perceived their environment to be significantly different from the environment perceived by the male students who were attending the same school. Female students recorded higher scores in all the Developmental Press areas. Female students perceived a higher degree of regulatory orderliness within the school than did their male counterparts as indicated by factor six, Area II scores.

Female students perceived a significantly higher degree of autonomy than did male students as indicated by factor four, personal dignity scores. Female students also perceived significantly higher standards of achievement and effort than did male students at the school being examined.

Female students in the school under study also perceived their

TABLE 21

Elementary and Secondary School Environment Index
Analysis of Variance

ESI	Male N=132	Female N=133	Probability	T Value
First Order Scores				
Factor 1 (Intellectual Climate)	3.20	3.67	.075	-1.79
Factor 2 (Expressiveness)	3.30	3.51	.391	- .86
Factor 3 (Group Social Life)	4.97	5.38	.168	-1.38
Factor 4 (Personal Dignity)	4.86	5.80	.001**	-3.22
Factor 5 (Achievement Standards)	3.39	4.41	.001**	-2.38
Factor 6 (Orderliness/Control)	3.41	4.05	.011*	-2.57
Factor 7 (Peer Group Dominance)	6.67	6.56	.678	.42
Second Order Scores				
Area I (Developmental Press)	19.73	22.78	.004*	-2.89
Area II(Orderliness/Control)	3.41	4.05	.011*	-2.57
Area III (Peer Group Dominance)	6.67	6.56	.678	.42

*Significant at the .05 level
**Significant at the .01 level

environment to emphasize a higher degree of intellectual achievement, personal development, worth and respect than did male students. This overall perception was reflected in the significant difference between male and female scores in Area I, Developmental Press. This overall perception was combined with a perception of control eminating from the administration through structures, regulations, orderliness and neatness.

In a similar study utilizing a related instrument, the High School Characteristics Index (HSCI), Choo (1976:204) noted similar results to those indicated in this study. Choo noted that male students tended to emphasize social and interpersonal aspects of their environment while female students emphasized the more academic aspects of their environment.

Hypothesis Four

Hypothesis Four was that there were no significant differences in the perceptions of the organizational climate of the school under study by the students when they were grouped according to their future plans and aspirations.

The mean scores and "F" test results on the ESI for students who were grouped according to their future plans and aspirations are presented in Table 22.

There were no significant differences between the groups of students except in factor three, group social life and factor four, personal dignity. In factor three, students who had decided to leave school before graduation had significantly lower scores than students

TABLE 22

Elementary and Secondary School Environment Index
Analysis of Variance

ESI	Mean Scores by Future Plans (1) Leave School Before Graduation	(2) Graduate Then Find Work	(3) Tech/Voc Training	(4) Attend Junior College	(5) Enter University	(6) Other	F Test Results Significant Difference Between
First Order Scores							
Factor 1	2.17	3.21	3.32	3.60	3.58	3.97	No Significant Difference
Factor 2	3.00	3.37	3.80	3.70	3.24	3.29	No Significant Difference
Factor 3	2.17	5.34	4.84	5.15	5.29	5.49	Groups (1 and 2) also (1 and 6)
Factor 4	2.83	5.01	4.54	5.65	5.97	5.86	Groups (1 and 5) also (3 and 5)
Factor 5	1.33	4.00	3.08	4.45	4.20	4.31	No Significant Difference
Factor 6	2.33	3.74	2.88	4.40	4.03	4.00	No Significant Difference
Factor 7	6.67	6.82	7.12	5.50	6.34	6.74	No Significant Difference
Second Order Scores							
Area I	11.50	20.93	19.58	22.55	22.28	22.91	No Significant Difference
Area II	2.33	3.74	2.88	4.40	4.03	4.00	No Significant Difference
Area III	6.67	6.82	7.12	5.50	6.34	6.74	No Significant Difference
Total Respondents	6	82	50	20	76	35	

* Significance at the .05 level

who planned to graduate before seeking employment and students whose future plans were not listed.

In factor four, personal dignity, students who intended to enter university had significantly higher scores than students who planned to enter vocational or technical schools after graduation. As a result of the findings, Hypothesis Four was rejected in the areas of group social life and personal dignity.

Discussion of Hypothesis Four. An analysis of the data presented indicates that significant differences in perceived organizational climate exist between students who are grouped according to their future plans. Students who are planning to enter university perceive a higher degree of personal dignity than students who are planning to leave school before graduation or students who are planning to enter vocational or technical training after high school. Students who are planning to leave school before graduation perceive a lower degree of group social life than students who are planning to graduate and then find work or students who responded to the "other" classification on the questionnaire.

Hypothesis Five

Hypothesis Five was that there were no significant relationships between the organizational climate subscales of the ESI and the age of the students who were respondents in this research project.

The Pearson Correlation Coefficients between a number of variables including age and the ESI subscales are presented in Table 23. An examination of the correlations between age and the ESI subscales

TABLE 23

Elementary and Secondary School Environment Index
Correlations with Student Background

ESI	Pearson Correlation Coefficients			
	Age	Years attending Sample School	Average Mark	Classes Missed
First Order Scores				
Factor 1 (Intellectual Climate)	0.144**	0.057	-0.0002	-0.163
Factor 2 (Expressiveness)	0.056	0.005	0.079	-0.175
Factor 3 (Group Social Life)	-0.082	-0.063	-0.111*	-0.143
Factor 4 (Personal Dignity)	0.003	-0.089	-0.170**	- .269**
Factor 5 (Achievement Standards)	0.090	0.023	-0.114*	-0.238**
Factor 6 (Orderliness/Control)	-0.028	-0.100	0.045	-0.149
Factor 7 (Peer Group Dominance)	-0.050	0.098	0.101	0.035
Second Order Scores				
Area I (Developmental Press)	0.053	-0.020	-0.094	-0.251**
Area II (Orderliness/Control)	-0.028	-0.100	0.045	-0.149
Area III (Peer Group Dominance)	-0.050	0.098	0.101	0.035

* Significant at the .05 level
** Significant at the .01 level

revealed only one significant correlation that between age and intellectual climate. This correlation even though significant at the .01 level was only .144. As a result, Hypothesis Five was accepted except for intellectual climate where a significant correlation was recorded.

Discussion of Hypothesis Five. The data presented in Table 23 indicating the relationship between organizational climate as depicted by the ESI and age revealed only one significant correlation. This significant correlation would indicate that older students perceived the school to attend to scholarly activities in the humanities, the arts and social sciences to a greater degree than did younger students. The overall finding seemed to indicate that age was not a significant predictor of organizational climate in the school under study.

Hypothesis Six

Hypothesis Six was that there were no significant relationships between the organizational climate subscales of the ESI and the number of years which students had attended the school under study.

An examination of Table 23 showed no significant correlations between the number of years a student had attended the school under study and the subscales of the ESI. As a result, Hypothesis Six was accepted as stated.

Discussion of Hypothesis Six. Examination of the data indicated that the variable concerned with the number of years which a student was in attendance at the school under study had little effect on his perceptions of the environment. Perceptions of students who were new to

the school were similar to the perceptions of students who had attended the school under study for a number of years. A similar conclusion was reached by Choo (1976:204) in a study of 335 high school students using the High School Characteristics Index, a related index.

Hypothesis Seven

Hypothesis Seven was that there were no significant relationships between the organizational climate subscales of the ESI and the average marks of the students who were attending the school under study.

The correlation coefficients for Hypothesis Seven are also presented in Table 23. Three significant correlations appeared between average mark and the ESI subscales. Negative correlations were recorded for factor three, group social life (-0.111), factor four, personal dignity (-0.170), and factor five, achievement standards (-0.114).

Correlations for factors three and five and the average marks of the students were found to be significant at .05. The correlation between factor four and the average marks of the students was found to be significant at .01. As a result of these significant correlations, Hypothesis Seven was rejected.

Discussion of Hypothesis Seven. The significant correlations indicated in Table 23 could be interpreted to mean that students with higher marks perceived a climate which was characterized by a higher degree of friendliness and togetherness, or factor three on the ESI, group social life. The students with higher marks also perceived the environment to be slightly less authoritarian than did other students, as indicated by factor four scores. A third significant correlation

indicated that students with higher marks perceived the achievement standards at the school under study to be higher than did the other students.

Hypothesis Eight

Hypothesis Eight was that there were no significant relationships between the organizational climate subscales of the ESI and the number of classes which students at the school under study had missed more or less deliberately.

The correlations between the classes missed and the ESI subscales are presented on Table 23. Significant negative correlations at the .01 level were recorded on factor four, personal dignity (-0.269), factor five, achievement standards (-0.238) and Area I, Developmental Press (-0.251). Therefore, Hypothesis Eight was rejected.

Discussion of Hypothesis Eight. Significant relationships between the ESI subscale scores and the number of classes missed more or less deliberately by students indicated that students who missed a higher number of classes perceived a lower emphasis on intellectual achievement, less personal development and an atmosphere with lower degrees of warmth and respect. A second relationship indicated that the more classes missed, the lower was the perceived personal dignity.

An inverse relationship existed between the number of classes missed and the perceived achievement standards. The relationship suggested that the more classes missed, the lower the perceived achievement standards of the school being studied. In a similar study which utilized the High School Characteristics Index, a related ques-

tionnaire, Hansen and Herr (1964) noted that chronic truants perceived a higher intellectual climate and more emotional constraints than did students with regular attendance patterns.

Hypothesis Nine

Hypothesis Nine was that there were no significant relationships between the organizational climate subscales of the ESI and the satisfaction scores recorded on the Student Information Questionnaire.

The correlation coefficients of relationships between the seven factors, three areas of the ESI and the ten satisfaction scores which were recorded on the Student Information Questionnaire are presented in Table 24. Statistically significant levels are indicated on the correlations matrix.

Seventy-six of a possible one hundred correlations were significantly different from zero. Sixty-eight of the correlations were significant at the .01 level. The remaining eight correlations maintained a significance level of .05. As a result of these significant correlations Hypothesis Nine was rejected.

Discussion of Hypothesis Nine. A large number of significant correlations between satisfaction and the organizational climate subscales of the ESI are shown in Table 24.

A significant relationship existed between all the subscales of the ESI and overall satisfaction, and satisfaction with participation in decision-making. Students who were highly satisfied with their participation in decision-making and were overall highly satisfied perceived the intellectual climate, expressiveness, group social

TABLE 24

Elementary and Secondary School
Environment Index
Correlations with Student Satisfaction Scores (Total Sample)

N=260 ESI	Satisfaction Dimensions									
	Sat 1	Sat 2	Sat 3	Sat 4	Sat 5	Sat 6	Sat 7	Sat 8	Sat 9	Sat 10
First Order Scores										
Factor 1	-0.087	-0.111	-0.109	-0.105	-0.192	-0.097	-0.099	-0.186**	-0.223**	-0.219**
Factor 2	-0.073	-0.041	-0.086	-0.036	-0.149	-0.011	-0.022	-0.239**	-0.200**	-0.159**
Factor 3	-0.290**	-0.350**	-0.350**	-0.278**	-0.305**	-0.208**	-0.307**	-0.283**	-0.517**	-0.500**
Factor 4	-0.244**	-0.480**	-0.480**	-0.198**	-0.376**	-0.074	-0.142*	-0.258**	-0.487**	-0.450**
Factor 5	-0.163**	-0.410**	-0.410**	-0.211**	-0.317**	-0.172**	-0.283**	-0.433**	-0.433**	-0.414**
Factor 6	-0.108*	-0.268**	-0.268**	-0.065**	-0.266**	-0.017	-0.120*	-0.250**	-0.287**	-0.281**
Factor 7	0.210**	0.228**	0.228**	0.157**	0.213**	0.028	0.077	0.200**	0.288**	0.276**
Second Order Scores										
Area I	-0.235**	-0.389**	-0.221**	-0.229**	-0.365**	-0.151**	-0.206**	-0.335**	-0.511**	-0.477**
Area II	-0.108*	-0.268**	-0.153**	-0.064	-0.266**	-0.017	-0.120*	-0.250**	-0.287**	-0.281**
Area III	0.210**	0.228**	0.142*	0.156**	0.213**	0.028	0.077	0.200**	0.288**	0.277**

* Significant at the .05 level
** Significant at the .01 level

life, personal dignity, achievement standards, orderliness/control and Developmental Press to be higher than did less satisfied students. These highly satisfied students also perceived the peer group dominance within the school under study to be lower than did less satisfied students.

Significant relationships also existed between the perceived Developmental Press, achievement standards, group social life and all the satisfaction dimensions. Students who perceived the climate of the school under study to be more self-actualizing, less adjustment oriented, more conducive to high academic standards and more friendly were more satisfied in all the satisfaction dimensions than were other students.

A number of significant correlations deserve individual attention. A correlation of -.48 significant at the .01 level was recorded between satisfaction with student and teacher relations and factor four, personal dignity, on the ESI. Students who were highly satisfied with their relations with teachers perceived the climate to be less authoritatian and to allow higher levels of self-determination than did less satisfied students.

A correlation of -.41 significant at the .01 level existed between factor five, achievement standards, on the ESI, and satisfaction with relations with teachers. Students who were highly satisfied with their relations with teachers perceived the climate of the school under study to set high standards of achievement.

A third individual correlation of -.517 significant at the .01 level existed between overall satisfaction and group social life. Students who were overall highly satisfied perceived the climate of the

school under study to have an environment which was more friendly and the student body to be more outgoing than the climate perceived by the less satisfied students.

A correlation of -.511 significant at the .01 level was recorded between overall satisfaction and Developmental Press. Students who perceived the climate of the school under study to be more self-actualizing and less adjustment oriented were more satisfied overall than were students who perceived the climate to be more adjustment oriented.

Correlations of -.487 and -.433 both significant at the .01 level were recorded between overall satisfaction and the ESI factors of personal dignity and achievement standards. Students who were overall highly satisfied perceived the climate of the school under study to afford greater personal dignity and have higher achievement standards than did less satisfied students.

Of the ten satisfaction dimensions identified, satisfaction with quality of work recorded the least number of significant correlations with the climate subscales of the ESI. Significant correlations were recorded between this satisfaction dimension and three subscales of the ESI, group social life, achievement standards and Developmental Press. Students who were highly satisfied with their quality of work perceived higher levels of group social life, achievement standards and perceived this environment to be less adjustment oriented than less satisfied students. No significant relationships existed between this satisfaction dimension and the remaining ESI subscales.

A final characteristic of the correlation matrix, Table 24, is that no significant relationships existed between factors one and two,

intellectual climate and expressiveness and the first seven satisfaction dimensions of the ESI. Students' perceptions of the intellectual climate and the degree of expressiveness available at the school under study showed no relationship to their degree of satisfaction regarding satisfaction dimensions one through seven.

In Table 25 and Table 26 the male and female equivalents of Table 24 are presented. Some significant sex differences occurred in satisfaction dimension six, quality of work. Unlike female students, male students indicated significant correlations between the satisfaction dimension quality of work and the ESI subscales of group social life, achievement standards and Developmental Press.

Males who were highly satisfied with their quality of work perceived higher group social life, higher achievement standards, and more opportunities for self actualization. This relationship was not significant for female students at the school under study.

Females maintained significant correlations between satisfaction dimension one, relations with classmates and factors two, four, and five of the ESI. Female students who were highly satisfied with their relations with classmates perceived the environment to afford greater opportunities for individual expressiveness, greater opportunities for higher personal dignity and higher achievement standards. These relationships were not significantly evident for male students.

Relationships between the peer group dominance subtest on the ESI and the satisfaction dimensions were more prevalent and more significant for females than for males. Significant relationships between peer group dominance and satisfaction indicated that the more dissatis-

TABLE 25

Elementary and Secondary School Environment Index
Correlations with Student Satisfaction Scores (Females Only)

N=133 ESI	Satisfaction Dimensions									
	Sat 1	Sat 2	Sat 3	Sat 4	Sat 5	Sat 6	Sat 7	Sat 8	Sat 9	Sat 10
First Order Scores										
Factor 1	-0.073	-0.077	-0.092	-0.041	-0.113	-0.045	-0.144*	-0.162*	-0.245**	-0.187*
Factor 2	-0.153*	-0.108	-0.176*	-0.059	-0.078	-0.030	-0.034	-0.201*	-0.321**	-0.215**
Factor 3	-0.273**	-0.308**	-0.246**	-0.194*	-0.298**	-0.129	-0.294**	-0.296**	-0.463**	-0.458**
Factor 4	-0.347**	-0.531**	-0.277**	-0.189*	-0.413**	-0.033	-0.199*	-0.283**	-0.521**	-0.509**
Factor 5	-0.175*	-0.405**	-0.154*	-0.204**	-0.274**	-0.111	-0.212**	-0.273**	-0.464**	-0.418**
Factor 6	-0.111	-0.359**	-0.195*	-0.051	-0.273**	-0.018	-0.155*	-0.250**	-0.345**	-0.320**
Factor 7	0.281**	0.332**	0.229**	0.172*	0.311**	0.070	0.089	0.216**	0.358**	0.372**
Second Order Scores										
Area I	-0.265**	-0.380**	-0.243**	-0.182*	-0.310**	-0.092	-0.032**	-0.314**	-0.522**	-0.467**
Area II	-0.111	-0.359**	-0.195*	-0.051	-0.273**	-0.018	-0.155*	-0.250**	-0.345**	-0.372**
Area III	0.281**	0.332**	0.229**	0.172*	0.311**	0.070	0.089	0.216**	0.358**	0.372**

* Significant at the .05 level
** Significant at the .01 level

TABLE 26

Elementary and Secondary School
Environment Index
Correlations with Student Satisfaction Scores (Males Only)

N=133 ESI	Satisfaction Dimensions									
	Sat 1	Sat 2	Sat 3	Sat 4	Sat 5	Sat 6	Sat 7	Sat 8	Sat 9	Sat 10
First Order Scores										
Factor 1	-0.087	-0.117	-0.127	-0.134	-0.238**	-0.105	-0.113	-0.207**	-0.194*	-0.234**
Factor 2	0.018	0.023	0.016	0.018	-0.206**	0.034	-0.049	-0.293**	-0.073	-0.102
Factor 3	-0.302**	-0.367**	-0.292**	-0.328**	-0.295**	-0.252**	-0.361**	-0.254**	-0.549**	-0.522**
Factor 4	-0.132	-0.413**	-0.196*	-0.180*	-0.299**	-0.059	-0.147*	-0.194*	-0.425**	-0.366**
Factor 5	-0.133	-0.380**	-0.095	-0.193*	-0.325**	-0.140	-0.221**	-0.281**	-0.397**	-0.390**
Factor 6	-0.089	-0.156*	-0.118	-0.047	-0.218**	-0.002	-0.137	-0.223**	-0.198*	-0.214**
Factor 7	-0.132	0.154	0.039	0.114	0.096	-0.028	0.072	0.169*	0.195*	0.169*
Second Order Scores										
Area I	-0.192*	-0.375**	-0.207**	-0.245**	-0.388**	-0.158*	-0.264**	-0.344**	-0.484**	-0.473**
Area II	-0.088	-0.156*	-0.118	-0.047	-0.218**	-0.002	-0.137	-0.223**	-0.198*	-0.214**
Area III	-0.132	0.154*	0.039	0.114	0.096	0.028	0.072	0.169*	0.195	0.169*

* Significant at the .05 level
** Significant at the .01 level

fied students perceived the peer group dominance to be greater than the more satisfied students.

HYPOTHESES CONCERNING SATISFACTION SCORES

In the remainder of this chapter, the hypotheses concerning the satisfaction questionnaire contained in the Student Information Questionnaire are presented.

The mean scores and standard deviations for the satisfaction dimensions and overall statistical satisfaction are presented in Table 27. Mean scores on dimensions nine and ten, indicated that the overall satisfaction of the student population of the school under study was between slightly satisfied and quite satisfied. Students tended to be most satisfied with their relationship with classmates (2.02) and most dissatisfied with their participation in decision-making (3.03).

Hypothesis Ten

Hypothesis Ten was that there were no significant sex differences in the satisfaction scores as determined by the Student Information Questionnaire.

The mean scores by sex, the probability and "t" value scores for the satisfaction dimensions are presented in Table 28. A significance level of .05 was maintained for the rejection of the hypothesis.

Female students at the school had significantly lower scores than male students on satisfaction dimension two, relations with the principal and the administrator. In contrast, male students had signi-

TABLE 27

Satisfaction - Mean Scores and Standard Deviation (Total Sample)

N=269 Satisfaction		Mean Score	Standard Deviation
Sat 1	(Relation with Classmates)	2.02	0.98
Sat 2	(Relation with Teachers)	2.75	1.24
Sat 3	(Relation with Student Body)	2.21	1.02
Sat 4	(Progress in Class)	2.77	1.20
Sat 5	(Relation with Principal & Admin.)	2.89	1.35
Sat 6	(Quality of Work)	2.67	1.06
Sat 7	(Participation in Extra Curr. Activities)	2.96	1.27
Sat 8	(Participation in Decision Making)	3.03	1.35
Sat 9	(Overall Satisfaction)	2.84	1.38
Sat 10	(Statistical Overall Satisfaction)	24.15	6.90

1 - Highly Satisfied
2 - Quite Satisfied
3 - Slightly Satisfied
4 - Slightly Dissatisfied
5 - Quite Dissatisfied
6 - Highly Dissatisfied

TABLE 28

Comparison of Student Satisfaction Scores by Sex

Satisfaction		Male N=132	Female N=133	Probability	T Value
Sat 1	(Relation with Classmates)	2.091	1.955	.262	1.13
Sat 2	(Relation with Teachers)	2.985	2.496**	.001	3.24
Sat 3	(Relation with Student Body)	2.227	2.218	.942	0.07
Sat 4	(Progress in Class)	2.864	2.677	.201	1.28
Sat 5	(Relation with Principal & Admin.)	3.083	2.662*	.010	2.58
Sat 6	(Quality of Work)	2.864	2.496**	.005	2.83
Sat 7	(Participation in Extra Curr. Activities)	2.705	3.181**	.002	-3.11
Sat 8	(Participation in Decision Making)	3.083	2.917	.316	1.00
Sat 9	(Overall Satisfaction)	2.947	2.699	.144	1.46
Sat 10	(Overall Statistical Satisfaction)	24.849	23.301	.067	1.84

* Significant at the .05 level
** Significant at the .01 level

ficantly lower scores than female students on dimension seven, participation in extracurricular activities. As a result of the findings, Hypothesis Ten was rejected.

Discussion of Hypothesis Ten. Female students were more satisfied than male students in all dimensions of satisfaction on the Student Information Questionnaire with the exception of participation in extracurricular activities. Male students were significantly more satisfied with their participation in extracurricular activities. Female students were significantly more satisfied with their relations with their teachers, the principal and the administrator. Female students were also significantly more satisfied than male students with the quality of their work.

Haslett (1976) in a study of student attitudes toward teachers concluded that females exhibited a more positive attitude toward teachers than did males. This finding concurs with the finding of this study that female students are more satisfied with their teachers than are male students.

Hypothesis Eleven

Hypothesis Eleven was that there were no significant differences in the satisfaction scores of students as determined by the Student Information Questionnaire when the students were grouped according to their future plans and aspirations.

The mean scores and "F" test results necessary for the determination of Hypothesis Eleven are presented in Table 29. In satisfaction dimensions one, two, and ten, students who planned to leave school

TABLE 29

Student Satisfaction
Comparison of Means (F Test Results)

	Mean Scores by Future Plans						
Satisfaction	(1) Leave School Before Graduation	(2) Graduate Then Find Work	(3) Tech/Voc Training	(4) Attend Junior College	(5) Enter University	(6) Other	N=269 F Test Results
Sat 1	3.33	1.96	2.12	1.95	1.93	2.03	Groups (1-2)(1-4)(1-5)(1-6)
Sat 2	4.50	2.68	3.04	2.55	2.59	2.63	Groups (1-2)(1-4)(1-5)(1-6)
Sat 3	4.00	2.07	2.32	2.25	2.16	2.23	Groups (1-2)(1-3)(1-4)(1-5)(1-6)
Sat 4	3.83	2.80	2.88	2.40	2.72	2.69	No Significant Difference
Sat 5	4.33	2.95	3.10	2.50	2.71	2.83	No Significant Difference
Sat 6	2.66	2.72	2.84	2.30	2.61	2.69	No Significant Difference
Sat 7	3.33	3.02	3.00	3.20	3.71	3.11	No Significant Difference
Sat 8	3.17	3.06	2.98	3.25	2.92	3.09	No Significant Difference
Sat 9	4.50	2.84	2.98	2.90	2.70	2.60	Groups (1-5)(1-6)
Sat 10	33.67	24.12	25.26	23.30	23.05	23.89	Groups (1-2)(1-4)(1-5)(1-6)
Total Respondents	6	82	50	20	76	35	

* Significant at the .05 level

before graduation had significantly higher scores than students who planned to graduate and then find work, students who planned to attend a junior college, students who planned to enter university and students whose future plans were not specified on the Student Information Questionnaire. Students who planned to leave school before graduation had significantly higher scores than all other groups of students in satisfaction dimension three, their relations with the student body. Students who planned to leave school before graduation differed significantly in overall satisfaction from students who planned to enter university or students whose future plans were not specified on the Student Information Questionnaire. Therefore, Hypothesis Eleven was rejected.

Discussion of Hypothesis Eleven. The results of this analysis indicated that the students who planned to leave school before graduation were more dissatisfied than other groups of students in all the satisfaction dimensions with the exception of quality of work and participation in decision-making. However, there were only six students who indicated that they planned to leave school before graduation. As a result, the external validity of the research finding regarding these six students is questionable.

Hypothesis Twelve

In Hypothesis Twelve it was postulated that there were no significant relationships between the satisfaction scores as determined by the Student Information Questionnaire and the age of the students.

The correlation coefficients for the relationships between

satisfaction dimensions and age are presented in Table 30. No significant correlations were determined between satisfaction and age. Therefore, Hypothesis Twelve was accepted.

Discussion of Hypothesis Twelve. Age does not appear as a significant predictor of satisfaction in this study.

Hypothesis Thirteen

Hypothesis Thirteen was that there were no significant relationships between the satisfaction scores as determined by the Student Information Questionnaire and the number of years which students had attended the school under study.

It is indicated on Table 30 that no significant relationships existed between the satisfaction dimensions and the number of years which students had been in attendance at the school under study. As a result, Hypothesis Thirteen was accepted.

Discussion of Hypothesis Thirteen. The results indicated that the number of years which a student had attended the school under study had no relationship to the student's satisfaction.

Hypothesis Fourteen

In Hypothesis Fourteen it was postulated that there were no significant relationships between the satisfaction scores as determined by the Student Information Questionnaire and the average marks of the students at the school under study.

Table 30 illustrates that four significant correlations may be

TABLE 30

Student Satisfaction
Correlations with Student Information

		Age	Years in Sample School	Average Mark	Classes Missed
Sat 1	(Relation with Classmates)	.001	.018	.045	-.019
Sat 2	(Relation with Teachers)	-.092	-.022	.099	.200**
Sat 3	(Relation with Student Body)	.050	-.024	.088	.036
Sat 4	(Progress in Class)	.055	.003	.258**	.245**
Sat 5	(Relation with Principal & Admin.)	.029	.009	.047	.231**
Sat 6	(Quality of Work)	.092	-.018	.112*	.164**
Sat 7	(Participation in Extra Curr. Activities)	-.077	-.093	.021	.053
Sat 8	(Participation in Decision Making)	-.054	-.001	-.042	.174**
Sat 9	(Overall Satisfaction)	-.015	-.005	.170**	.221**
Sat 10	(Overall Statistical Satisfaction)	-.019	-.023	.139*	.240**

* Significant at the .05 level
** Significant at the .01 level

seen to exist between average marks of students and their satisfaction. A correlation of .258, significant at the .01 level, existed between students' average marks and their progress in class indicating that high marks were related to greater satisfaction with progress in school.

A similar relationship occurred regarding the quality of work. A correlation of .112, significant at the .05 level, indicated that students with high marks were generally satisfied with their quality of work. Overall satisfaction correlations of .170, significant at the .01 level, and .139, significant at the .05 level, indicated that students with higher marks were generally more satisfied. As a result of these findings, Hypothesis Fourteen was rejected.

Discussion of Hypothesis Fourteen. The findings indicate that students with higher marks were significantly more satisfied with their progress in class, their quality of work and were comparatively high in overall satisfaction.

This result is in opposition to the findings of Diedrich (1969) who found that student satisfaction toward the school was independent of achievement or academic progress.

Hypothesis Fifteen

In Hypothesis Fifteen it was postulated that there were no significant relationships between the satisfaction scores as determined by the Student Information Questionnaire and the number of classes which were missed more or less deliberately by the students.

In Table 30 the correlation coefficients for Hypothesis

Fifteen are presented. Significant correlations were recorded on satisfaction dimensions two, four, five, six, eight, nine and ten. All correlations were significant at the .01 level and were positive in nature. As a result of the findings, Hypothesis Fifteen was rejected.

Discussion of Hypothesis Fifteen. Significant relationships appeared to exist between a number of satisfaction dimensions and the number of classes which had been missed more or less deliberately by students. Students who had missed more classes were significantly more dissatisfied with their relations with teachers, the principal and the administration. These students also were significantly more dissatisfied with their progress in class, their quality of work, their participation in decision-making and in overall satisfaction.

CHAPTER 5

SUMMARY, CONCLUSIONS AND IMPLICATIONS

The purpose of this research project was to analyse the organizational climate of one school from the student point of view. The instrument utilized in the research project, the Elementary and Secondary School Environment Index, was developed by Stern (1970) to measure the perceived organizational climate in schools from a student point of view. In order to carry out this research project, fifteen hypotheses were developed and tested. Procedures utilized and results of the statistical treatments are outlined in Chapter 4. A summary of the findings, a brief outline of the conclusions of the study, suggested implications and specific recommendations are presented in this chapter.

SUMMARY

The results of the analysis of data are presented in four sections in this chapter. The first section deals with the comparison of subscale scores on the ESI of the school under study when compared with the norms provided. The second section presents a review of the relationships between subscale scores on the ESI and other student variables. A review of the findings of differences in satisfaction scores of selected student groups in the school under study is presented in the third section of the chapter. The final section deals with the relationships between the satisfaction scores and other student variables.

Summary Related to Differences in Subscale Scores on the ESI

Four hypotheses were tested in an attempt to determine significant differences on the subscale scores of the ESI. The result of the "t" test analysis of the first hypothesis was that the school under study differed significantly from the norms which were provided for the ESI in all but one of the ESI subscales.

The results indicated that the school under study was perceived by students as being comparatively adjustment oriented and more institutionalized than the schools studied during the norming process. The results also pointed to a perception of a very strong peer group which exercised a great deal of control over students. The students perceived the administrative control of the school under study not to be significantly different from the administrative control in the schools studied previously.

An analysis of significant differences on the ESI subscales of students grouped by their program of studies produced a number of significant differences. Students in all three groups had similar perceptions of the peer group and the control mechanisms of the school but differed in their perceptions of other climate variables. Students enrolled in the business and general program of studies perceived the school climate to be more institutionalized and adjustment oriented than did students who were enrolled in the vocational or matriculation program of studies.

An evaluation of sex differences on the ESI subscales produced significant results. Females perceived the school climate to offer more opportunities for self-actualization than did males. Females

also perceived significantly more administrative control and administrative order than did males. Higher achievement standards and more personal dignity were other significant differences perceived by female students in the school under study.

The final hypothesis in this section concerned itself with the effects of students' future plans and aspirations on the ESI subscale scores. An "F" test was utilized to determine significant differences between the groups of students. Students who planned to leave school before graduation had significantly lower scores in perceived group social life than did students who planned to graduate and then find work or students whose future plans were not listed on the questionnaire. Students who planned to leave school before graduation and students who planned to enter vocational or technical training programs after high school perceived the school to provide less personal dignity than did university bound students. It appeared that according to the ESI there were many different perceived organizational climates at the student level within the school under study.

Summary Related to Relationships Between the ESI and Other Student Variables

Five hypotheses were developed to determine significant relationships between the ESI subscales and student age, the number of years which students had attended the school under study, students' marks, the number of classes which students had missed more or less deliberately, and student satisfaction.

The first hypothesis correlated age and the subscales of the ESI. A significant correlation existed between age and perceived

intellectual climate. Older students perceived the intellectual climate of the school to be higher than did younger students. No other significant relationships were determined.

The number of years which a student had attended the school under study was correlated with the subscales of the ESI. Analysis of the data showed that the number of years which students had attended the school under study had little relationship to the perceived organizational climate.

A third aspect which correlated with the ESI was the students' average marks. It was found that students with higher marks perceived somewhat higher group social life, more personal dignity and higher achievement standards than did students with lower marks.

The number of classes which were missed more or less deliberately by students provided another aspect to be correlated with the ESI. Significant relationships in this area indicated that students who missed more classes perceived lower personal dignity, lower achievement standards at the school under study and lower Developmental Press. The lower Developmental Press could be interpreted to mean that more truant students perceived the school to be more institutionalized and adjustment oriented.

A large number of significant correlations were determined in the analysis of the relationship between the ESI and student satisfaction. The more satisfied students perceived the organizational climate more positively than did the less satisfied students. The more satisfied students perceived less peer group dominance than did less satisfied students.

Summary Related to Differences in Satisfaction Scores

Two hypotheses were developed and tested to determine whether significant differences existed in satisfaction scores for selected groups of students. A comparison of student satisfaction by sex indicated that female students were more satisfied with all the dimensions of satisfaction on the Student Information Questionnaire with the exception of participation in extracurricular activities. Female students were significantly more satisfied with their relations with teachers, the principal and the administration and their quality of work.

A comparison of student satisfaction scores when students were grouped according to their future plans and aspirations indicated that students who planned to leave school before graduation were the most dissatisfied students. Students who planned to leave school before graduation had significantly lower scores than other student groups in satisfaction with their relations with their classmates, their teachers, the student body and in overall satisfaction.

Summary Related to Relationships Between Satisfaction Scores and Other Student Variables

Four hypotheses were developed and tested to determine the relationships between satisfaction and student age, the number of years which students had attended the school under study, the student's average marks, and the number of classes students had missed more or less deliberately.

The age of the students was determined to have no relationship

with satisfaction. Similar results were recorded for the number of years which students had attended the school being studied. Neither variable was a determinant of student satisfaction.

Another hypothesis was related to average marks of the students and student satisfaction. Students with higher marks were significantly more satisfied with their progress in class and their quality of work. Students with higher marks also recorded positive correlations with overall satisfaction. This indicated that students with higher marks were slightly more satisfied in an overall evaluation.

A final hypothesis was concerned with the relationship between student satisfaction and the number of classes missed more or less deliberately. Students who had missed more classes were significantly less satisfied with their relations with their teachers, the principal and the administration. These students were also significantly less satisfied with their progress in class and their participation in decision-making. A significant correlation also occurred with regard to overall satisfaction. This relationship was interpreted to show that students who were truant were less satisfied with the overall school situation than were other students.

CONCLUSIONS

In this section, specific findings of the study are discussed in relation to the research problem as outlined in Chapter 1.

Conclusions Regarding the Climate Construct

The findings of this study indicate that within the student

level of the school organization a number of significantly different perceptions of organizational climate exist. These significantly different climates are linked to subsystems such as program of study, sex of the respondents and future plans and aspirations of the respondents. Significant relationships between age, achievement, attendance and perceived organizational climate suggested that individual variables significantly affect the perceptions of individuals of their environment. These findings suggest that though perceptions of the environment may differ from individual to individual, a commonality of perceptions of individuals within subsystems of the organization exists. Perceptions of the environment by individuals within a subsystem tend to be similar enough to produce significant differences between subsystems. These significant perceptual differences between subsystems suggest that the subsystem level is an appropriate level of climate research within an organization.

The Organizational Climate of the School Under Study

In general, the school under study tended to be comparatively adjustment oriented and more institutionalized than the schools used in the norming process. With regard to the related research presented in Chapter 2, the school is characterized by low development scores and an extensively organized peer culture exhibited by the high peer group dominance score.

Relationship of Individual Variables to Perceptions of Climate

In the following section conclusions pertaining to the indivi-

dual characteristics of the respondents to the study are discussed in relation to organizational climate.

Sex. Female students perceived the organizational climate of the school to be significantly different from male students. Females perceived the climate to afford more opportunities for self-actualization, higher achievement standards, and more personal dignity than did males. Female students also perceived significantly higher levels of administrative orderliness and control than did males.

Age. Older students perceived the intellectual climate to be higher at the school under study than did younger students. No further relationships existed between age and perceived organizational climate.

Course of Studies. Students in all three programs offered at the school under study had similar perceptions of the control features of the school but differed in perceptions of the development features of the school. The students who were enrolled in the business and general program of studies perceived the school to be more institutionalized and adjustment oriented than did matriculation or vocational students.

Matriculation students perceived the school to offer significantly more personal dignity than did students in vocational or general and business programs.

Students who were enrolled in the matriculation and vocational programs perceived the achievement standards to be significantly higher than did students who were enrolled in the general and business

programs.

Vocational students perceived greater expressiveness in the school under study than did students who were enrolled in the other two programs of study.

Students who were enrolled in the vocational program of studies perceived the intellectual climate of the school to be significantly higher than did students who were enrolled in the business and general program of studies.

Achievement of Students. Students with higher marks perceived a somewhat higher group social life, more personal dignity and higher achievement standards than did students with lower marks.

Number of Years in the School Under Study. The number of years which a student had attended the school under study had no significant relationship to the perceptions of the climate of the school.

Attendance of Students. Students who missed more classes more or less deliberately perceived the personal dignity, achievement standards and Developmental Press of the school to be significantly lower than did students who attended regularly.

Aspirations of Students. Students who planned to enter university perceived the school to provide more personal dignity than did students who planned to enter vocational or technical training programs after graduation or students who planned to leave school before graduation.

Relationship of Individual Variables to Satisfaction

In this section conclusions regarding satisfaction and its relationship to a number of individual student variables are presented.

Sex. Female students were significantly more satisfied than were male students with their relations with teachers, the principal and administration and with their quality of work. Female students were also significantly less satisfied with their participation in extracurricular activities than were male students.

Age. This variable was not related to student satisfaction.

Achievement of Students. Students with higher marks were significantly more satisfied with their progress in class, their quality of work and had higher overall satisfaction than did other students.

Number of Years at the School Under Study. This variable was not found to be related to student satisfaction.

Attendance of Students. Students who had missed more classes more or less deliberately were more dissatisfied with their relations with teachers, administrators, participation in decision-making and overall satisfaction.

Aspirations of Students. Students who planned to leave school before graduation were more dissatisfied with their relations with classmates, teachers, and the student body in general. This group of students had significantly less overall satisfaction than any other

student group.

Student Satisfaction and Perceived Organizational Climate

Student satisfaction was closely related to student perceptions of their environment. In general, students who perceived the school environment positively were more satisfied than were other students. Students who perceived a higher degree of peer group dominance were less satisfied than were other students.

Perceived intellectual climate and expressiveness were not related to the satisfaction of students in relation to classmates, teachers, the student body, administration, quality of work, progress in class and participation in extra-curricular activities.

Students who perceived the environment of the school to enhance self-actualizing behavior were more satisfied than were other students.

IMPLICATIONS AND RECOMMENDATIONS

Implications for Educational Administrators

The significant results of this research project have specific implications for administrative practice.

1. Administrators interested in ascertaining the organizational climate of their school must identify what climate description or combination of climate perceptions they wish to analyze. This research indicates that the administrator should look beyond the total school cumulative climate description to obtain a more comprehensive view of the school's climate from smaller subgroups within the organization.

2. Educational administrators wishing to compare organizational climates among a number of schools should perhaps use smaller groupings based on individual variables such as sex, program of studies, and achievement as the unit of analysis. The administrator should compare the perceptions of organizational climate of similar sex, achievement and program of studies groupings. This would enable the administrator to identify differences in perceived climate among schools rather than comparing cumulative perceptions of climate.

3. The significant relationships between the climate descriptors of the ESI and the satisfaction scales of this research also has implications for administrators.

The degree to which a school exhibits the characteristics of a high "development" school using Stern's criteria seems to be positively related to student satisfaction. An administrator wishing to increase student satisfaction would promote the type of climate characterized by Stern as high development oriented.

Implications for Further Study

Some of the findings of this research project have implications for further research.

1. The significant differences between the mean scores of the school under study on the subscales of the ESI and the norms provided for the ESI imply a need to verify the validity of the norms through further use of the instrument in other Alberta high schools.

2. Also implicit in the results is the need to duplicate this study in a number of high school settings to determine the validity of the

significant results with regard to the general school population.

3. Implicit in the research is a need to compare student and teacher perceptions of the school environment with related instruments. The ESI could be utilized for student perceptions and the Organizational Climate Index, also developed by Stern could be used for teacher perceptions.

4. Further investigations of the peer group phenomenon described in the results of the ESI would also be of interest. The commonality of perceptions regarding the control features of the environment is worthy of further investigation.

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APPENDIX A

1. The Elementary and Secondary School Environment Index (ESI)
2. The Test Manual for the ESI
3. Alternate directions for the ESI utilized in this study
4. Revised answer sheet for the ESI

ELEMENTARY AND SECONDARY SCHOOL ENVIRONMENT INDEX

SHORT FORM

Form ESI-1273SF

George G. Stern, Syracuse University

There are 61 statements in this booklet. They are about school life. The things that are described here happen at many schools, but schools are not all alike. You are to decide which of these are true of your school and which are not. You may not actually *know* the answers to many of these statements, but your answer should tell what you really believe is true or probably true about your school and what is false or probably false about it. Answer every question, even if you have to guess at some of them.

DIRECTIONS

Turn the special answer sheet sideways and fill in the blanks where the red arrows are with the date, your school or organization, class or group, name, age, sex, and the title of this booklet. The person who is giving this will tell you if there is any other information you should provide. Then, for each statement, mark the space on the answer sheet underneath

T — if it is something that is generally true about your school, is something which happens or might happen there, or is the way people at your school seem to feel or act.

F — if it is something that is generally false or not true about your school, is something which does not happen or probably would not happen there, or is not the way people at your school seem to feel or act.

Be sure to fill in the whole answer space with a heavy black mark, using any #2 or softer pencil. Do *not* use ball point or ink.

YOU MUST ANSWER EVERY STATEMENT

Work as quickly as you can. Make sure that the number of the statement is the same as the answer sheet space. Do not make any extra marks on the answer sheet or in this booklet. Erase completely anything you want to change or remove.

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Mark the space on the answer sheet

T – if it is something that is generally true about your school, is something which happens or might happen there, or is the way people at your school seem to feel or act.

F – if it is something that is generally false or not true about your school, is something which does not happen or probably would not happen there, or is not the way people at your school seem to feel or act.

1. Many teachers and students like to do things that involve music, art, or acting.
2. It's important here to be friends with the right people.
3. Teachers here really care about a student's feelings.
4. Students here think that this school is really the best.
5. Most students here look up to their teachers and respect them.
6. Students here work hard at everything they do–in and out of school.
7. Students in this school have many chances to get to know important works of art, music, or the theatre.
8. Students take a great deal of pride in how they look.
9. Almost everybody comes to the big school events (fairs, games or dances).
10. Students often get together and talk about things they have learned in school.
11. Once you've made a mistake it's hard to live it down in this school.
12. There are so many things going on here that it is easy to make friends.
13. Most students would not be interested in a film about writers or poets.
14. There are lots of dances, parties, and sports activities here.
15. Most students would not be interested in hearing a talk by a famous scientist.
16. Meetings or discussions on serious subjects are not held very often here.
17. The teachers often make you feel like a baby.
18. This school has the same activities every year.
19. There are several student crowds here, and if you're not in one you're pretty much on your own.
20. There are so many things to do here that students are busy all the time.
21. Students here seldom read books which deal with political or social issues.
22. At this school there is a place for everything, and everything is kept exactly where it belongs.
23. Having a good time comes first with most students here.
24. Students here spend a lot of time talking about their boyfriends or girlfriends.
25. There are many parties or dances given at the school.
26. New ideas are always being tried out here.
27. Student leaders at this school expect you to go along with what they say.
28. Students here seldom talk about social problems or issues.
29. Discussions on national and international news are encouraged in this school.
30. There is a lot of smoking, drinking, or drugs around this school.
31. When students get together they seldom talk about concert music or art.

Mark the space on the answer sheet

T – if it is something that is generally true about your school, is something which happens or might happen there, or is the way people at your school seem to feel or act.

F – if it is something that is generally false or not true about your school, is something which does not happen or probably would not happen there, or is not the way people at your school seem to feel or act.

32. Students try in a lot of ways to be friendly, especially to people who are new here.
33. Everyone has a lot of fun at this school.
34. Teachers get angry with students very easily here.
35. Everything you learn here is carefully planned.
36. You get along better if you make the right friends here.
37. Teachers here put a lot of hard work and enthusiasm into their teaching.
38. Students with bad colds or anything that's "catching" are sent home so that they don't give it to others.
39. History, literature, and art are among the best liked subjects here.
40. Students have to be neat and clean when they come to school.
41. There always seems to be a lot of little quarrels going on.
42. Many student desks or lockers are messy, some even dirty.
43. Most students would like to have a girlfriend or boyfriend of their own.
44. One nice thing about this school is the interest teachers take in the students.
45. You have to do what everybody else does in order to get along around here.
46. This school is boring.
47. Everyone here thinks about safety so that nobody will get hurt.
48. Good manners and being nice are important here.
49. The teachers here always seem to think students are up to something bad and make the worst even of little things.
50. Classrooms are always kept very clean and in order.
51. Long, serious discussions are common among the students.
52. Some of the most popular students make jokes that aren't exactly nice.
53. Students here work hard because they love to learn, and not just because they want good grades.
54. Most students here take their school work very seriously.
55. Most of the students here started going out with a girlfriend or boyfriend when they were very young.
56. Very few things happen here that make people feel very excited.
57. Student parties are exciting.
58. Most students here are not interested in television programs about social or political problems.
59. Students in this school are very friendly with each other.
60. Many teachers seem a little angry or unhappy and are hard to figure out.
61. Nearly everyone here wishes they had a boyfriend or girlfriend they could go out with after school or over the weekend.

Section 3 - The Elementary and Secondary School Index (ESI) and the High School Characteristics Index (HSCI)

I. Description

The ESI is essentially a short form of the HSCI. The former (Form ESI-1273SF) contains 61 items and requires about fifteen minutes to complete. The latter (Form HSCI-960) contains the standard 300 items and requires forty minutes for administration. In addition to use for secondary schools, the ESI can be used at the elementary level down to the fourth grade. The HSCI should not be used below the secondary school level.

Both of these instruments are designed to measure the psychological characteristics of their academic environments in much the same manner as the CCI does at the college level.

The 300 item format of the longer HSCI supplies scores for the basic 30 press scales with 10 items employed for each scale. The scales are identical in name and parallel in meaning to those used for the CCI. Detailed definitions of the scales are given in Section 5 of the Appendix.

A factor analysis has recently been performed on a sample of 6,733 HSCI cases that have been collected over the last ten years. The analysis essentially replicated the earlier structure reported by Stern (1970) and was used as a basis for the creation of the ESI.

The factor definitions, reliabilities, scoring procedures, and norms that are presented in the following pages are derived from this more recent analysis.

First Order Scores

1. Intellectual Climate

The items that comprise this factor are intended to reflect the qualities of a staff and plant specifically devoted to scholarly activities in the humanities, arts, and social sciences. A high score indicates a great deal of attention to these areas by the school and implies the presence of such facilities as good libraries and laboratories. In such a school, "long, serious discussions are common among the students," "many students would be interested in hearing a talk by a famous scientist," "course offerings and faculty in the social sciences . . . in the natural sciences . . . are outstanding," etc.
(Fantasied Achievement, Humanities/Social Sciences, Reflectiveness, Ego Achievement, Science, Understanding)

2. Expressiveness

This factor primarily suggests a form of aesthetic awareness and emotional participation. It is concerned with opportunities offered to the student for the development of leadership potential and self-assurance. Among the activities serving this purpose are debates, projects, student drama and musical productions, and other forms of participation in highly visible creative arts.
(Change, Sensuality, Humanities/Social Science)

3. Group Social Life

The environment implied by high scores on this factor is fun-loving, friendly, and actively outgoing. Mutually supportive group activities among the student body are common and take on a warm, friendly character, more or less typifying adolescent togetherness.
(Play, Emotionality, Affiliation, Nurturance, Exhibitionism)

4. Personal Dignity/Supportiveness

Schools with high scores on this factor encourage autonomy among students but also allow for the expression of dependency and defensiveness that is often found in elementary and secondary schools, "teachers take an interest in the students," and do not make them feel like babies. Such climates tend to be non-authoritarian and allow high levels of self-determination.
(Assurance, Defensiveness, Objectivity, Blame Avoidance, Tolerance, Supplication)

5. Achievement Standards

Schools with high scores on this factor set high standards of achievement for their students. In such schools, "most students take their school work seriously," "students work hard at everything they do - - in and out of school," and "teachers put a lot of hard work and enthusiasm into their teaching."
(Counteraction, Understanding, Conjunctivity, Energy, Achievement)

6. Orderliness/Control

High scores on this factor are associated with administrative structure or regulatory orderliness. In such environments "students have to be neat and clean when they come to school," and "there is a place for everything and everything is kept exactly where it belongs."
(Deference, Harm Avoidance, Deliberativeness, Narcissism, Orderliness)

7. Peer Group Dominance

High scores on this factor are suggestive of an environment in which peer group relations are strongly valued. In such schools "it is important to be friends with the right people," and "you have to do what everybody else does in order to get along around here."
(Practicalness, Sex)

Second Order Scores

The seven first order institional dimensions are combined to produce second order area scores. These area scores are defined below. The factors that contribute to each area score are listed after the area description.

Area I - Development Press

Schools with high scores in Area I emphasize intellectual achievement, personal development, warmth and respect as opposed to a more institutionalized, adjustment oriented approach to high school education. (Intellectual Climate, Expressiveness, Group Social Life, Personal Dignity/Supportiveness, Achievement Standards).

Area II - Orderliness/Control and Area III - Peer Group Dominance are essentially replications of the first order scores.

ELEMENTARY AND SECONDARY SCHOOL ENVIRONMENT INDEX

RELIABILITIES - FORM ESI-1273SF

Factor	Alpha Reliability Coefficients
1. Intellectual Climate	0.74
2. Expressiveness	0.72
3. Group Social Life	0.81
4. Personal Dignity	0.77
5. Achievement Standards	0.80
6. Orderliness/Control	0.71
7. Peer Group Dominance	0.73

Area	Alpha Reliability Coefficients
1. Development Press	.89
2. Orderliness/Control	.71
3. Peer Group Dominance	.73

ELEMENTARY AND SECONDARY SCHOOL CHARACTERISTICS INDEX

SHORT FORM ESI-1273SF

HANDSCORING GUIDE

Calculation of Factor Scores

There are seven factors, each consisting of ten items. To score any factor, compare the respondent's answers on the items in that factor with the key. Assign a 1 to each item where the answer is the same as the key. The number of such items is the respondent's score on that factor.

The following example illustrates this procedure for Factor 1.

E.G.

ITEM	KEY	RESPONDENT'S ANSWER	ITEM SCORE
10	T	T	1
13	F	T	0
15	F	T	0
16	F	T	0
21	F	F	1
28	F	F	1
29	T	F	0
51	T	F	0
53	T	T	1
54	T	F	0

Score for Factor 1 = 4

Calculation of Area Scores

There are three areas. The following formulas are used to calculate scores on these areas. Let F1 = respondent's score on Factor 1 etc,; then:

Area I = F1 + F2 + F3 + F4 + F5
Area II = F6
Area III = F7

ELEMENTARY AND SECONDARY SCHOOL CHARACTERISTICS INDEX

Short Form

Form ESI - 1273SF

Key

Factor

1		2		3		4		5		6		7	
Item	Key	Item	Key	Item	Key	Item	Key	Item	Key	Item	Key	Item	Key
10	T	1	T	4	T	3	T	5	T	8	T	2	T
13	F	7	T	9	T	11	F	6	T	22	T	19	T
15	F	13	F	12	T	17	F	16	F	23	F	24	T
16	F	18	F	14	T	34	F	20	T	30	F	27	T
21	F	21	F	25	T	36	F	35	T	38	T	36	T
28	F	26	T	32	T	41	F	37	T	40	T	43	T
29	T	28	F	33	T	44	T	44	T	42	F	45	T
51	T	31	F	56	F	46	F	46	F	47	T	52	T
53	T	39	T	57	T	49	F	53	T	48	T	55	T
54	T	58	F	59	T	60	F	54	T	50	T	61	T

FACTOR AND AREA DEFINITIONS

HSCI and ESI

FACTORS

1. Intellectual Climate: Attention to scholarly activities in humanities, arts, and social sciences; presence of necessary facilities.
2. Expressiveness: Aesthetic awareness and emotional participation; opportunities to develop leadership and self-assurance.
3. Group Social Life: Fun-loving, friendly, and outgoing environment; togetherness.
4. Personal Dignity/Supportiveness: Encouragement of autonomy while allowing for expression of dependency and defensiveness; non-authoritarian climate.
5. Achievement Standards: High standards of achievements and hard work.
6. Orderliness/Control: Emphasis on administrative structure and regulatory orderliness, on neatness.
7. Peer Group Dominance: High value for peer group relations; conformity.

AREAS

I. Development: Emphasis on intellectual achievement, personal development, warmth, and respect.

Areas II and III are identical with Factors 6 and 7 respectively.

STANDARD SCORE CONVERSION TABLES

ELEMENTARY AND SECONDARY SCHOOL INDEX (N = 1117)
(Page 1)

Factor Scores

	Norm		Standard Scores										
	Mean	Sigma	0	1	2	3	4	5	6	7	8	9	10
1.	5.786	2.463	-4.7	-3.9	-3.1	-2.3	-1.5	-0.64	0.17	0.99	1.8	2.6	3.4
2.	6.231	2.24	-5.6	-4.7	-3.8	-2.9	-2.0	-1.1	-0.21	0.69	1.6	2.5	3.4
3.	6.432	2.273	-5.7	-4.8	-3.9	-3.0	-2.1	-1.3	-0.38	0.50	1.4	2.3	3.1
4.	7.149	2.411	-5.9	-5.1	-4.3	-3.4	-2.6	-1.8	-0.95	-0.12	0.71	1.5	2.4
5.	6.245	2.389	-5.2	-4.4	-3.6	-2.7	-1.9	-1.0	-0.21	0.63	1.5	2.3	3.1
6.	4.103	2.153	-3.8	-2.9	-2.0	-1.0	-0.10	0.83	1.8	2.7	3.6	4.5	5.5
7.	4.782	2.406	-4.0	-3.1	-2.3	-1.5	-0.65	0.18	1.0	1.8	2.7	3.5	4.3

STANDARD SCORE CONVERSION TABLES

ELEMENTARY AND SECONDARY SCHOOL INDEX (N = 1117)
(Page 2)

Norm Mean 31.843 Sigma 8.898

RAW SCORE TENS	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
0	-7.2	-6.9	-6.7	-6.5	-6.3	-6.0	-5.8	-5.6	-5.4	-5.1
10	-4.9	-4.7	-4.5	-4.2	-4.0	-3.8	-3.6	-3.3	-3.1	-2.9
20	-2.7	-2.4	-2.2	-2.0	-1.8	-1.5	-1.3	-1.1	-0.86	-0.64
30	-0.41	-0.19	.04	0.26	0.48	0.71	0.93	1.2	1.4	1.6
40	1.8	2.1	2.3	2.5	2.7	3.0	3.2	3.4	3.6	3.9

Areas 2 and 3 are identical with Factors 6 and 7, respectively

INSTRUCTIONS TO THE TEACHER

A. There are two parts to this study:

1) Student Information Questionnaire

2) Elementary and Secondary School Environment Index

The student package contains the Elementary and Secondary School Environment Index, the Elementary and Secondary School Environment Index answer sheet, and the Student Information Questionnaire.

It is IMPERATIVE that:

1) NO NAMES are written on any parts of the questionnaires, and that,

2) the Student Information Questionnaire and the Elementary and Secondary School Environment Index Answer Sheet REMAIN STAPLED TOGETHER.

B. DIRECTIONS TO BE GIVEN STUDENTS ABOUT the Elementary and Secondary School Environment Index:

Please DISREGARD the "Instructions to the students" which are printed on the Elementary and Secondary School Environment Index Questionnaire. INSTEAD read the following instructions to the students:

There are 61 statements in this booklet. They are about school life. The things that are described here happen at many schools, but schools are not all alike. You are to decide which of these are true of your school and which are not. You may not actually know the answers to many of these statements, but your answer should tell what you really believe is true or probably true about your school and what is false or probably false about it. Answer every question, even if you have to guess at some of them.

DIRECTIONS

ON YOUR ANSWER SHEET CIRCLE T OR F:

T - if it is something that is generally true about your school, is something which happens or might happen there, or is the way people at your school seem to feel or act.

F - if it is something that is generally false or not true about your school, is something which does not happen or probably would not happen there, or is not the way people at your school seem to feel or act.

DO NOT WRITE YOUR NAME ON THE ANSWER SHEET

YOU MUST ANSWER EVERY STATEMENT

Work as quickly as you can. Make sure that the number of the statement is the same as the answer sheet space. Do not make any extra marks on the answer sheet or in this booklet. Erase completely anything you want to change or remove.

Elementary and Secondary

School Environment Index

ANSWER SHEET

Directions: For each of the 61 statements circle T if you feel the statement is generally true and F if you feel the statement is generally false.

1.	T	F	23.	T	F	45.	T	F
2.	T	F	24.	T	F	46.	T	F
3.	T	F	25.	T	F	47.	T	F
4.	T	F	26.	T	F	48.	T	F
5.	T	F	27.	T	F	49.	T	F
6.	T	F	28.	T	F	50.	T	F
7.	T	F	29.	T	F	51.	T	F
8.	T	F	30.	T	F	52.	T	F
9.	T	F	31.	T	F	53.	T	F
10.	T	F	32.	T	F	54.	T	F
11.	T	F	33.	T	F	55.	T	F
12.	T	F	34.	T	F	56.	T	F
13.	T	F	35.	T	F	57.	T	F
14.	T	F	36.	T	F	58.	T	F
15.	T	F	37.	T	F	59.	T	F
16.	T	F	38.	T	F	60.	T	F
17.	T	F	39.	T	F	61.	T	F
18.	T	F	40.	T	F			
19.	T	F	41.	T	F			
20.	T	F	42.	T	F			
21.	T	F	43.	T	F			
22.	T	F	44.	T	F			

APPENDIX B

1. The Student Information Questionnaire
2. The Student Satisfaction Questionnaire

STUDENT INFORMATION QUESTIONNAIRE

Please place a check mark in the appropriate blank for questions #1 to #7. Please mark only one answer for each question.

1. Your sex is (a) _____ male (b) _____ female

2. How old were you on your last birthday?

   a _____ 14 or under

   b _____ 15

   c _____ 16

   d _____ 17

   e _____ 18

   f _____ 19 or over

3. How many years have you attended this school?

   a _____ less than five months

   b _____ five months to one year

   c _____ one year to one and one-half years

   d _____ one and one-half years to two years

   e _____ two years to two and one-half years

   f _____ two and one-half years to three years

   g _____ more than three years

4. In which of the following high school programs are you now registered?

   a _____ Matriculation

   b _____ General

   c _____ Business

   d _____ Vocational

   e _____ Special Vocational

QUESTIONNAIRE Page Two

5. What is your average mark for all subjects on your last report card from this school?

a _____ 90% or above

b _____ 80% to 90%

c _____ 70% to 80%

d _____ 60% to 70%

e _____ 50% to 60%

f _____ 40% to 50%

g _____ below 40%

6. How many classes have you missed, more or less deliberately, in all your courses combined, since the beginning of the current semester?

a _____ none

b _____ 1 to 3 classes

c _____ 4 to 6 classes

d _____ 7 to 10 classes

e _____ 11 to 13 classes

f _____ more than 14 classes

7. Which of the following statements best describes your future plans?

a _____ Leave school before graduation.

b _____ Graduate. Then find work.

c _____ Go into technical/vocational training after high school.

d _____ Attend a junior college after high school.

e _____ Enter university after high school.

f _____ Other.

STUDENT SATISFACTION

Rate your degree of satisfaction as a student in each of the following areas, using this scale. CIRCLE the letter which best describes your feelings.

A. Highly satisfied

B. Quite satisfied

C. Slightly satisfied

D. Slightly dissatisfied

E. Quite dissatisfied

F. Highly dissatisfied

		Highly satisfied	Quite satisfied	Slightly satisfied	Slightly dissatisfied	Quite dissatisfied	Highly dissatisfied
1.	Relationships with other students in your classes	A	B	C	D	E	F
2.	Relationships with your teachers	A	B	C	D	E	F
3.	Relationships with other students in this school	A	B	C	D	E	F
4.	Relationships with counsellor(s)	A	B	C	D	E	F
5.	Your progress in your classes	A	B	C	D	E	F
6.	Relationships with the principal and other administrators	A	B	C	D	E	F
7.	The quality of work you have produced in your classes	A	B	C	D	E	F
8.	Participation in extra-curricular activities	A	B	C	D	E	F
9.	Participation in decision-making	A	B	C	D	E	F
10.	Overall satisfaction with your school	A	B	C	D	E	F

APPENDIX C

1. The Elementary and Secondary School Environment Index need press scales

Need - Press Scale Definitions*

1. Abasement - Assurance: self-depreciation versus self-confidence
2. Achievement: striving for success through personal effort
3. Adaptability - Defensiveness: acceptance of criticism versus resistance to suggestion
4. Affiliation - Rejection: friendliness versus unfriendliness
5. Aggression - Blame Avoidance: hostility versus disorganization
6. Change - Sameness: flexibility versus routine
7. Conjunctivity - Disjunctivity: planfulness versus disorganization
8. Counteraction - Inferiority Avoidance: restriving after failure versus withdrawl
9. Deference - Restiveness: respect for authority versus rebelliousness
10. Dominance - Tolerance: ascendance versus forebearance
11. Ego Achievement: striving for power through social action
12. Emotionality - Placidity: expressiveness versus restraint
13. Energy - Passivity: effort versus inertia
14. Exhibitionism - Inferiority Avoidance: attention-seeking versus shyness
15. Fantasied Achievement: daydreams of extraordinary public recognition
16. Harm-avoidance - Risk-taking: fearfulness versus thrill-seeking
17. Humanities - Social Sciences: interests in Humanities and Social Sciences
18. Impulsiveness - Deliberation: impetuousness versus reflection

19. Narcissism: vanity
20. Nurturance - Rejection: helping others versus indifference
21. Objectivity - Projectivity: detachment versus suspicion
22. Order - Disorder: compulsive organization of details versus carelessness
23. Play - Work: pleasure-seeking versus purposefulness
24. Practicalness - Impracticalness: interest in practical activities versus indifference
25. Reflectiveness: introspective contemplation
26. Science: interest in the Natural Sciences
27. Sensuality - Puritanism: interest in sensory and aesthetic experiences
28. Sexuality - Prudishness: heterosexual interests versus their inhibition
29. Supplication - Autonomy: dependency versus self-reliance
30. Understanding: intellectuality

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*Lloyd, K. Bishop, Individualizing Educational Systems, page 213

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